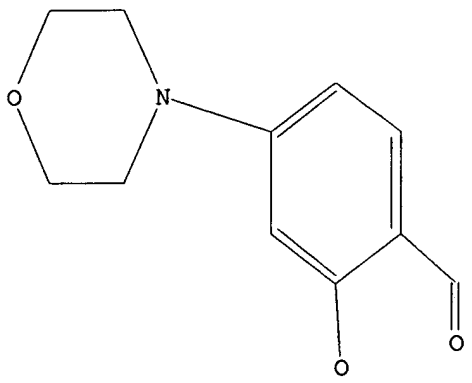
L1 STR




Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SEARCH INITIATED 12:59:03 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     43 TO ITERATE

100.0% PROCESSED      43 ITERATIONS                                 9 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          467 TO     1253
PROJECTED ANSWERS:               9 TO      360

L2             9 SEA SSS SAM L1

=> s l1 sss full
FULL SEARCH INITIATED 12:59:16 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    907 TO ITERATE

100.0% PROCESSED     907 ITERATIONS                                88 ANSWERS
SEARCH TIME: 00.00.01

L3            88 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                        ENTRY    SESSION
FULL ESTIMATED COST                                    140.28     140.49

FILE 'CAPLUS' ENTERED AT 12:59:27 ON 16 DEC 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 16 Dec 2002 VOL 137 ISS 25
FILE LAST UPDATED: 15 Dec 2002 (20021215/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

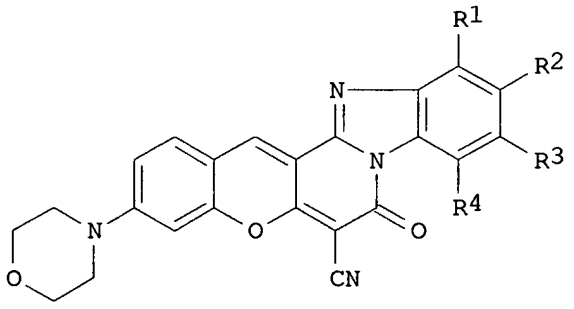
=> s l3
L4 37 L3

=> d ibib abs hitstr tot

L4 ANSWER 1 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:247796 CAPLUS
DOCUMENT NUMBER: 136:270284
TITLE: Benzopyran-type orange to red dye and organic electroluminescent device
INVENTOR(S): Sato, Hideki; Sato, Yoshiharu; Endo, Kyoko; Murata, Yukichi
PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 2002097382 | A2 | 20020402 | JP 2000-284749 | 20000920 |

OTHER SOURCE(S): MARPAT 136:270284
GI



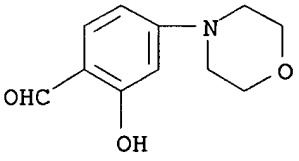

I

AB The morpholine-substituted benzopyran dye is that represented as I (R1-R4 = H, substituent; any groups in R1-R4 may form rings). The electroluminescent device involves a substrate, an anode, an org. layer, and a cathode laminated in this order wherein the org. layer contains I. The orange to red dye is suitable for thin film electroluminescent devices.

IT **70362-07-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(for prepn. of morpholine-substituted benzopyran-type orange to red dye for org. electroluminescent device)

RN 70362-07-1 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)




L4 ANSWER 2 OF 37 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:185097 CAPLUS

DOCUMENT NUMBER: 136:247591

TITLE: Preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase and methods to potentiate cancer treatment

INVENTOR(S): Halbrook, James; Kesicki, Edward; Burgess, Laurence E.; Schlachter, Stephen T.; Eary, Charles T.; Schiro, Justin G.; Huang, Hongmei; Evans, Michael; Han, Yongxin

PATENT ASSIGNEE(S): Icos Corporation, USA

SOURCE: PCT Int. Appl., 247 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

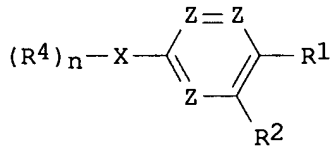
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2002020500 | A2 | 20020314 | WO 2001-US26709 | 20010828 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2001088432 | A5 | 20020322 | AU 2001-88432 | 20010828 |
| US 2002165218 | A1 | 20021107 | US 2001-941897 | 20010828 |

PRIORITY APPLN. INFO.: US 2000-229899P P 20000901

WO 2001-US26709 W 20010828

OTHER SOURCE(S): MARPAT 136:247591

GI



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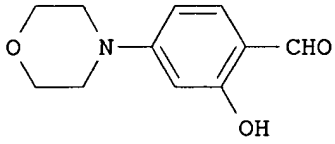


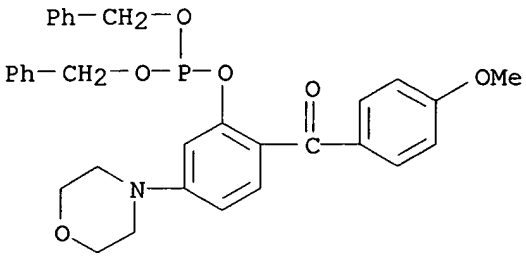
II

AB Compds. that inhibit DNA-dependent protein kinase, I [n = 0-4; X = (un)substituted 4-7 membered aliph. ring contg. 0-3 heteroatoms consisting of N, O and S (X = morpholinyl preferred); Z = independently N or CR3; R3 = independently H, halo, CHO, alkoxy, etc.; R1 = H, (un)substituted alkyl, cycloalkyl, CO, NO2, etc.; R2 = H, (un)substituted alkyl, carbamoyl, alkoxy, sulfamyl, etc.; with provision when X = morpholinyl, R2 and R4 and R3 = H at each occurrence, then R1 is different from COMe, phenylalkene, and NO2; and with the provision that when X = morpholinyl, R4 = H and Z = N at each occurrence, then R1 and R2 when taken together is different from triazole], were prepd. and compns. of I with other antineoplastic agents are claimed for use in cancer treatment therapy. Thus, II was prepd. in 23% yield via formylation of 3-(4-morpholinyl)phenol. II demonstrated an IC50 value of 400 nM in DNA-PK assay. Preliminary results of animal tumor model studies indicate II enhanced the tumoristatic effect of total body irradn. (using 100-500 rad .gamma.-radiation, II delayed tumor growth 1.2 to 1.8-fold relative to animals receiving radiation only).

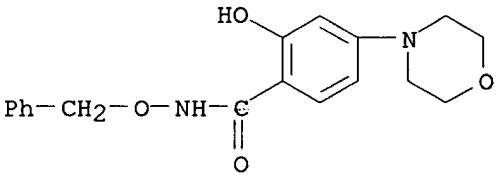
IT **404011-19-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

RN 404011-19-4 CAPLUS

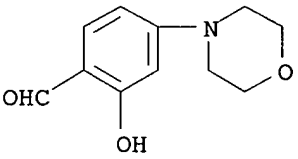
CN Phosphorous acid, 2-(4-methoxybenzoyl)-5-(4-morpholinyl)phenyl bis(phenylmethyl) ester (9CI) (CA INDEX NAME)



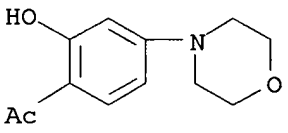
IT **404011-22-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)
RN 404011-22-9 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-(phenylmethoxy)- (9CI) (CA INDEX NAME)



IT **70362-07-1P 404009-40-1P**
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(target compd.; prepn. of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)
RN 70362-07-1 CAPLUS
CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)

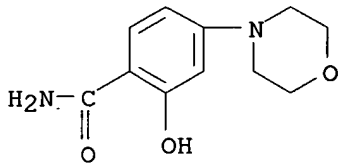


RN 404009-40-1 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)

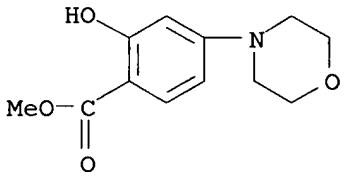


IT **37893-38-2P 207850-94-0P 404009-98-9P**
**404010-21-5P 404010-32-8P 404010-44-2P**
**404010-52-2P 404011-00-3P 404011-08-1P**
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(target compd.; prepn. of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

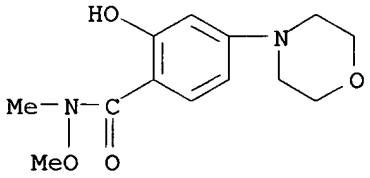
RN 37893-38-2 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



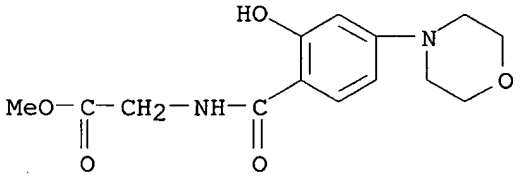
RN 207850-94-0 CAPLUS
CN Benzoic acid, 2-hydroxy-4-(4-morpholinyl)-, methyl ester (9CI) (CA INDEX NAME)

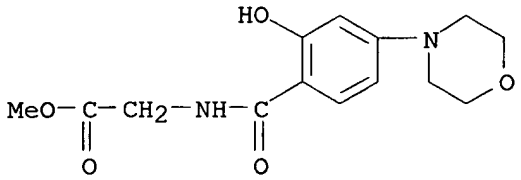


RN 404009-98-9 CAPLUS
CN Benzamide, 2-hydroxy-N-methoxy-N-methyl-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)

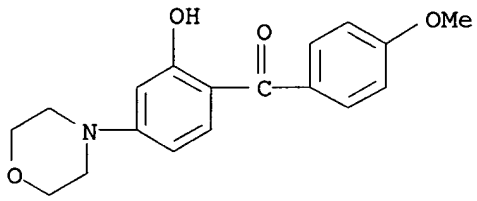


RN 404010-21-5 CAPLUS
CN Glycine, N-[2-hydroxy-4-(4-morpholinyl)benzoyl]-, methyl ester (9CI) (CA INDEX NAME)

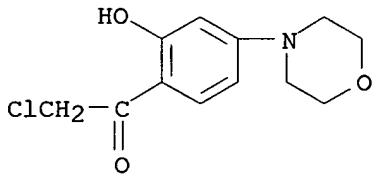




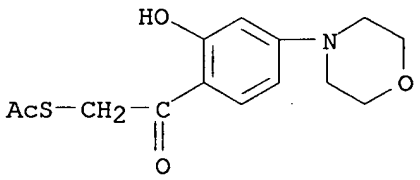
RN 404010-32-8 CAPLUS
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl](4-methoxyphenyl)- (9CI) (CA INDEX NAME)



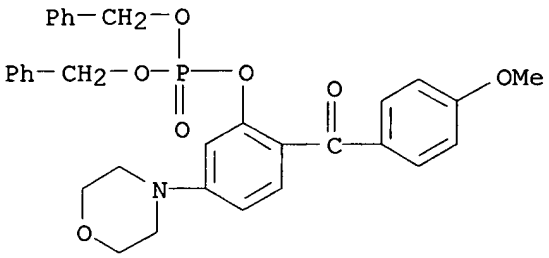
RN 404010-44-2 CAPLUS
CN Ethanone, 2-chloro-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



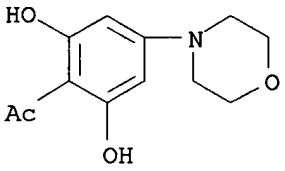
RN 404010-52-2 CAPLUS
CN Ethanethioic acid, S-[2-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-oxoethyl] ester (9CI) (CA INDEX NAME)



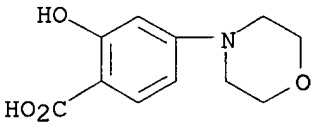
RN 404011-00-3 CAPLUS
CN Phosphoric acid, 2-(4-methoxybenzoyl)-5-(4-morpholinyl)phenyl bis(phenylmethyl) ester (9CI) (CA INDEX NAME)



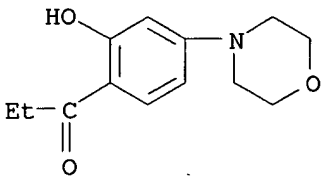
RN 404011-08-1 CAPLUS
CN Ethanone, 1-[2,6-dihydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



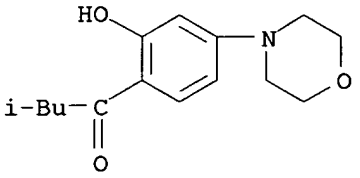
IT **404009-36-5P 404009-42-3P 404009-44-5P**
**404009-46-7P 404009-48-9P 404009-52-5P**
**404009-54-7P 404009-56-9P 404009-58-1P**
**404009-60-5P 404009-62-7P 404009-68-3P**
**404009-70-7P 404009-86-5P 404009-88-7P**
**404009-90-1P 404009-92-3P 404009-94-5P**
**404009-96-7P 404010-00-0P 404010-02-2P**
**404010-04-4P 404010-06-6P 404010-08-8P**
**404010-10-2P 404010-12-4P 404010-14-6P**
**404010-16-8P 404010-18-0P 404010-23-7P**
**404010-29-3P 404010-30-6P 404010-34-0P**
**404010-36-2P 404010-38-4P 404010-40-8P**
**404010-42-0P 404010-43-1P 404010-45-3P**
**404010-46-4P 404010-47-5P 404010-49-7P**
**404010-50-0P 404010-51-1P 404010-53-3P**
**404011-01-4P 404011-13-8P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(target compd.; prepn. of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)
RN 404009-36-5 CAPLUS
CN Benzoic acid, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



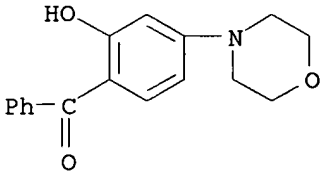
RN 404009-42-3 CAPLUS
CN 1-Propanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



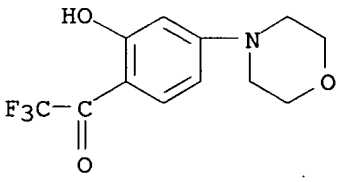
RN 404009-44-5 CAPLUS
CN 1-Butanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-3-methyl- (9CI) (CA INDEX NAME)



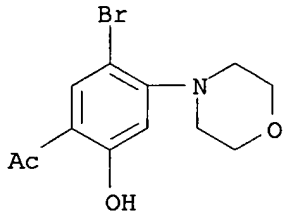
RN 404009-46-7 CAPLUS
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl]phenyl- (9CI) (CA INDEX NAME)



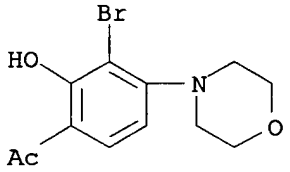
RN 404009-48-9 CAPLUS
CN Ethanone, 2,2,2-trifluoro-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



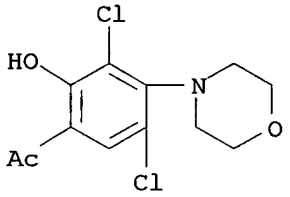
RN 404009-52-5 CAPLUS
CN Ethanone, 1-[5-bromo-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



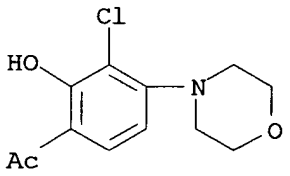
RN 404009-54-7 CAPLUS
CN Ethanone, 1-[3-bromo-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



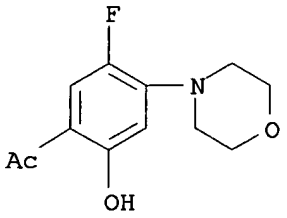
RN 404009-56-9 CAPLUS
CN Ethanone, 1-[3,5-dichloro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RN 404009-58-1 CAPLUS
CN Ethanone, 1-[3-chloro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RN 404009-60-5 CAPLUS
CN Ethanone, 1-[5-fluoro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



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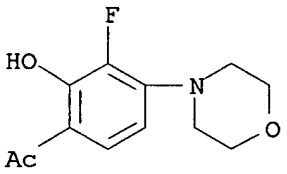
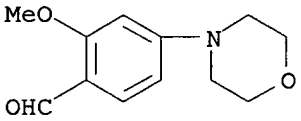
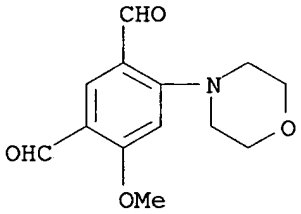
CN Ethanone, 1-[3-fluoro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



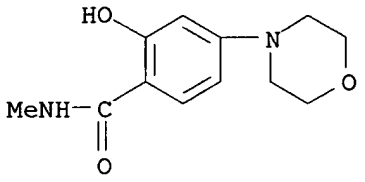
RN 404009-68-3 CAPLUS
CN Benzaldehyde, 2-methoxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



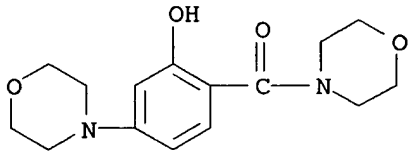
RN 404009-70-7 CAPLUS
CN 1,3-Benzenedicarboxaldehyde, 4-methoxy-6-(4-morpholinyl)- (9CI) (CA INDEX NAME)



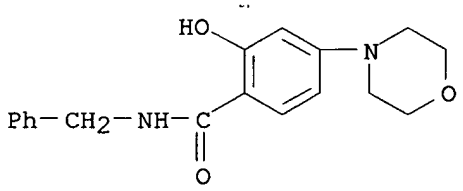
RN 404009-86-5 CAPLUS
CN Benzamide, 2-hydroxy-N-methyl-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



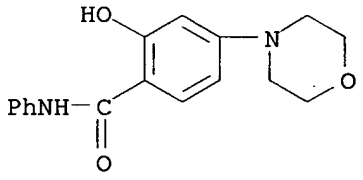
RN 404009-88-7 CAPLUS
CN Morpholine, 4-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



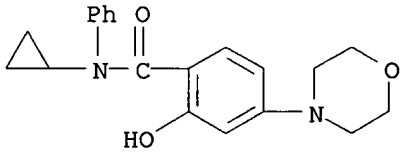
RN 404009-90-1 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 404009-92-3 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-phenyl- (9CI) (CA INDEX NAME)

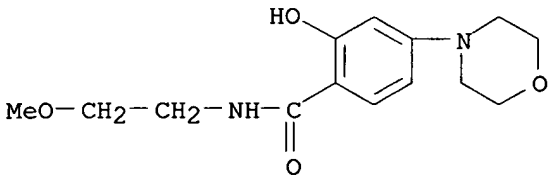


RN 404009-94-5 CAPLUS
CN Benzamide, N-cyclopropyl-2-hydroxy-4-(4-morpholinyl)-N-phenyl- (9CI) (CA INDEX NAME)

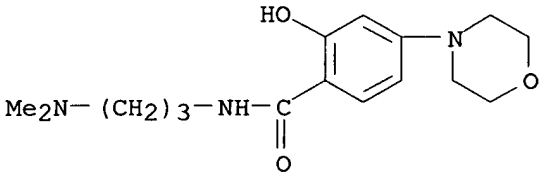


RN 404009-96-7 CAPLUS

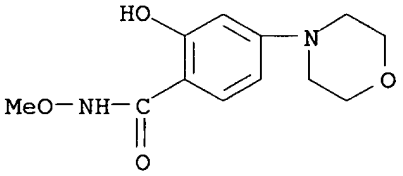
CN Benzamide, 2-hydroxy-N-(2-methoxyethyl)-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



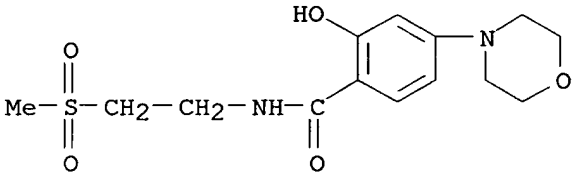
RN 404010-00-0 CAPLUS
CN Benzamide, N-[3-(dimethylamino)propyl]-2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



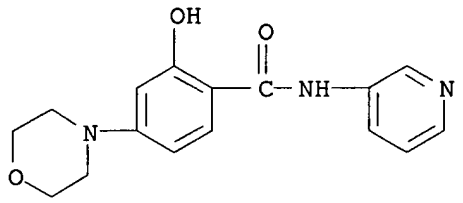
RN 404010-02-2 CAPLUS
CN Benzamide, 2-hydroxy-N-methoxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



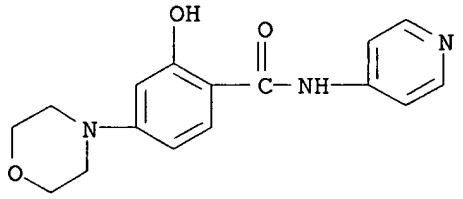
RN 404010-04-4 CAPLUS
CN Benzamide, 2-hydroxy-N-[2-(methylsulfonyl)ethyl]-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



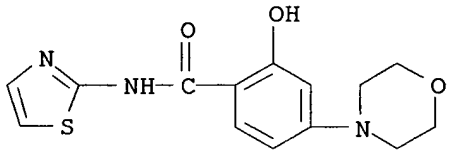
RN 404010-06-6 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-3-pyridinyl- (9CI) (CA INDEX NAME)



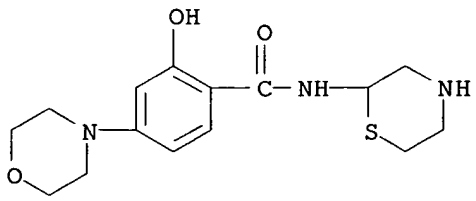
RN 404010-08-8 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-4-pyridinyl- (9CI) (CA INDEX NAME)



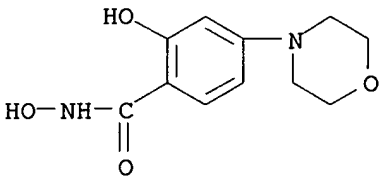
RN 404010-10-2 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-2-thiazolyl- (9CI) (CA INDEX NAME)



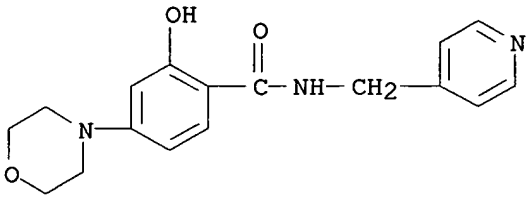
RN 404010-12-4 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-2-thiomorpholinyl- (9CI) (CA INDEX NAME)



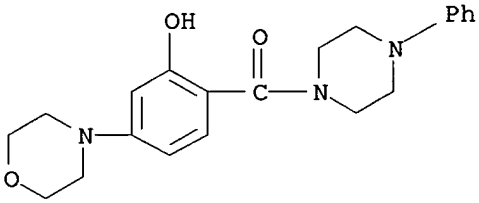
RN 404010-14-6 CAPLUS
CN Benzamide, N,2-dihydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



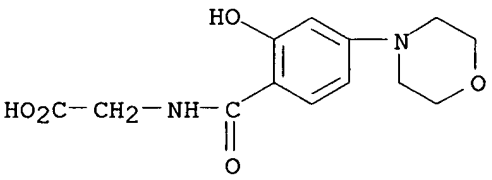
RN 404010-16-8 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)-N-(4-pyridinylmethyl)- (9CI) (CA INDEX NAME)



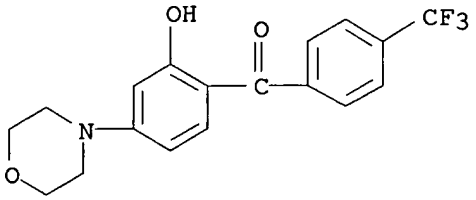
RN 404010-18-0 CAPLUS
CN Piperazine, 1-[2-hydroxy-4-(4-morpholinyl)benzoyl]-4-phenyl- (9CI) (CA INDEX NAME)



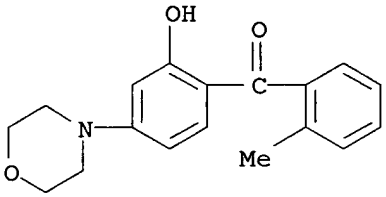
RN 404010-23-7 CAPLUS
CN Glycine, N-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



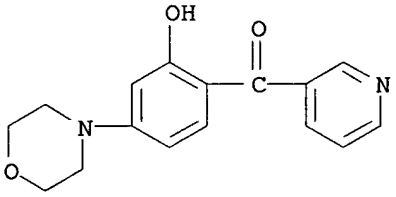
RN 404010-29-3 CAPLUS
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl][4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



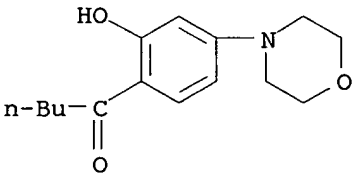
RN 404010-30-6 CAPLUS
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl](2-methylphenyl)- (9CI) (CA INDEX NAME)



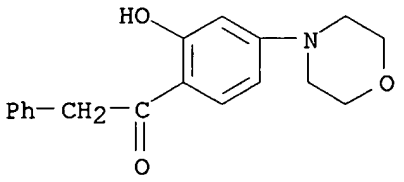
RN 404010-34-0 CAPLUS
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl]-3-pyridinyl- (9CI) (CA INDEX NAME)



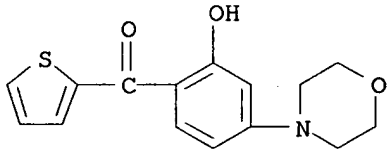
RN 404010-36-2 CAPLUS
CN 1-Pentanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



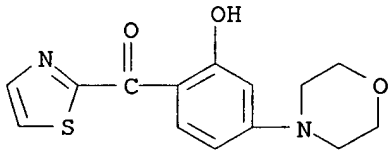
RN 404010-38-4 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-phenyl- (9CI) (CA INDEX NAME)



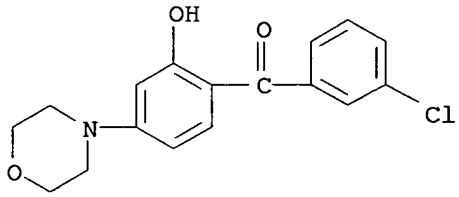
RN 404010-40-8 CAPLUS
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl]-2-thienyl- (9CI) (CA INDEX NAME)



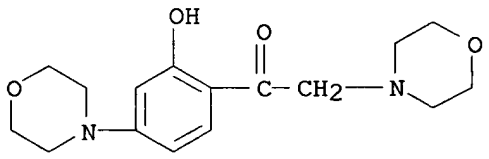
RN 404010-42-0 CAPLUS
CN Methanone, [2-hydroxy-4-(4-morpholinyl)phenyl]-2-thiazolyl- (9CI) (CA INDEX NAME)



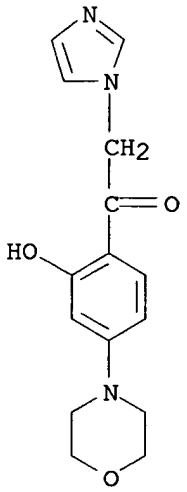
RN 404010-43-1 CAPLUS
CN Methanone, (3-chlorophenyl)[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



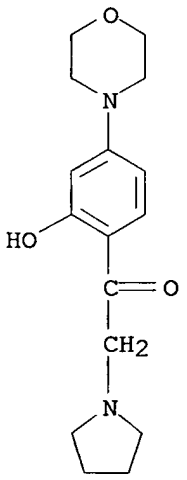
RN 404010-45-3 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-(4-morpholinyl)- (9CI) (CA INDEX NAME)



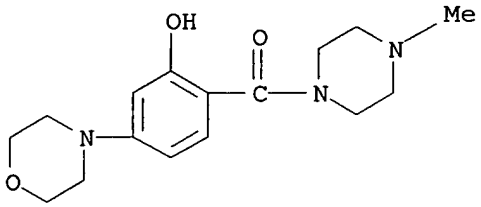
RN 404010-46-4 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-(1H-imidazol-1-yl)- (9CI) (CA INDEX NAME)



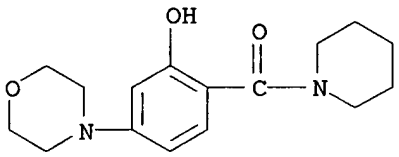
RN 404010-47-5 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



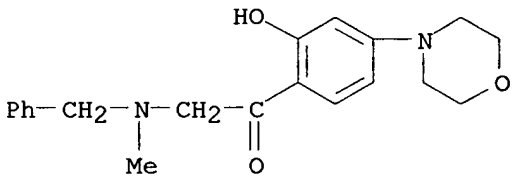
RN 404010-49-7 CAPLUS
CN Piperazine, 1-[2-hydroxy-4-(4-morpholinyl)benzoyl]-4-methyl- (9CI) (CA INDEX NAME)



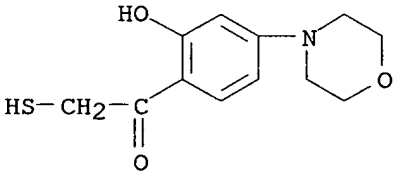
RN 404010-50-0 CAPLUS
CN Piperidine, 1-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



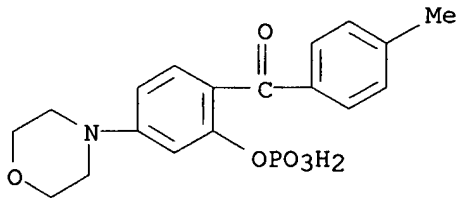
RN 404010-51-1 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-[methyl(phenylmethyl)amino]- (9CI) (CA INDEX NAME)



RN 404010-53-3 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]-2-mercapto- (9CI) (CA INDEX NAME)

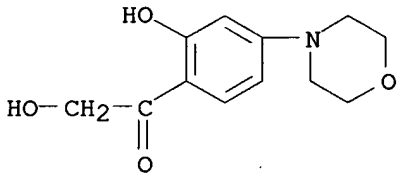


RN 404011-01-4 CAPLUS
CN Methanone, (4-methylphenyl)[4-(4-morpholinyl)-2-(phosphonooxy)phenyl]-, disodium salt (9CI) (CA INDEX NAME)



●2 Na

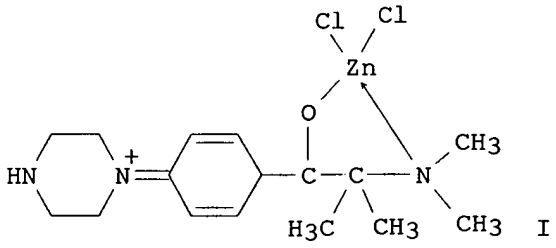
RN 404011-13-8 CAPLUS
CN Ethanone, 2-hydroxy-1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 3 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:537505 CAPLUS
DOCUMENT NUMBER: 135:107723
TITLE: Photoinitiators and applications therefor
INVENTOR(S): Nohr, Ronald S.; MacDonald, John Gavin
PATENT ASSIGNEE(S): Kimberly-Clark Worldwide, Inc., USA
SOURCE: U.S., 31 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 6265458 | B1 | 20010724 | US 1999-407007 | 19990928 |

OTHER SOURCE(S): MARPAT 135:107723
GI

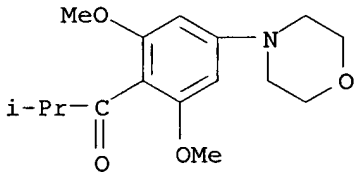


I

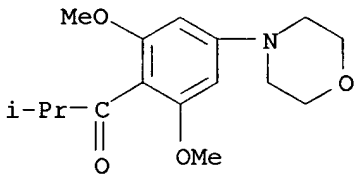
AB The present invention is directed to new, energy-efficient, photoinitiators comprise X1:CZ1M1, wherein X1 is a conjugated system such as one or more aryl groups or substituted aryl groups; Z1 is -O, -S, an alkyl group having from one to six carbon atoms, an ester moiety, a ketone moiety, an amine moiety, an imine moiety, an ether moiety, an aryl or substituted aryl group, a metal or non-metal, or a metal or non-metal contg. group, such as a zinc-contg. group or a boron-contg. group, resp.; and M1 is an alkyl group, a substituted alkyl group, or forms a five-member ring with Z1. The present invention is also directed to a method of generating a reactive species, which includes exposing one or more photoinitiators to radiation to form one or more reactive species. Also described are methods of polymg. polymerizable materials, methods of curing an unsatd. oligomer/monomer mixt., and methods of laminating using the photoinitiators of the present invention. In addn., the present invention is directed to ink compns., adhesive compns. and resins, and methods of printing using the above-described photoinitiators. The photoinitiator I was prepd. from ZnCl2 and 1-piperazine-2-dimethylamine-2-methyl-propanone.

IT **263010-97-5P 263010-98-6P 263010-99-7P 263011-00-3P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(photoinitiators and applications therefor)

RN 263010-97-5 CAPLUS
CN 1-Propanone, 1-[2,6-dimethoxy-4-(4-morpholinyl)phenyl]-2-methyl- (9CI) (CA INDEX NAME)

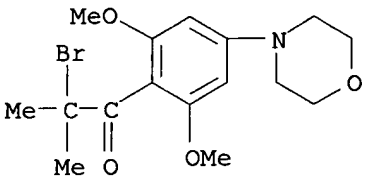



RN 263010-98-6 CAPLUS
CN 1-Propanone, 1-[2,6-dimethoxy-4-(4-morpholinyl)phenyl]-2-methyl-, hydrobromide (9CI) (CA INDEX NAME)



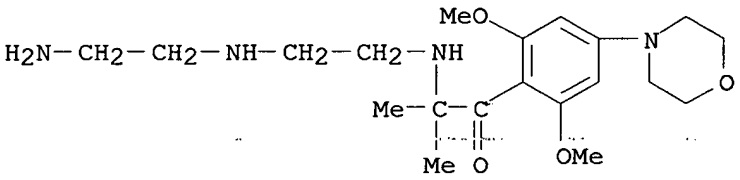

● HBr

RN 263010-99-7 CAPLUS
CN 1-Propanone, 2-bromo-1-[2,6-dimethoxy-4-(4-morpholinyl)phenyl]-2-methyl-, hydrobromide (9CI) (CA INDEX NAME)



● HBr

RN 263011-00-3 CAPLUS
CN 1-Propanone, 2-[[2-[(2-aminoethyl)amino]ethyl]amino]-1-[2,6-dimethoxy-4-(4-morpholinyl)phenyl]-2-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1167 THERE ARE 1167 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:227644 CAPLUS
DOCUMENT NUMBER: 132:251564
TITLE: Photoinitiators and applications therefor
PATENT ASSIGNEE(S): Kimberly-Clark Worldwide, Inc., USA; Nohr, Ronald Sinclair; MacDonald, John Gavin
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2000018750 | A2 | 20000406 | WO 1999-US22590 | 19990928 |
| WO 2000018750 | A3 | 20000803 | | |

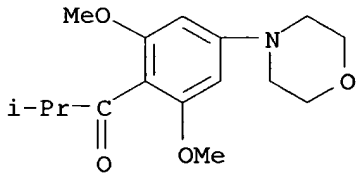
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1117698 A2 20010725 EP 1999-956500 19990928
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
BR 9914123 A 20020618 BR 1999-14123 19990928
PRIORITY APPLN. INFO.: US 1998-102153P P 19980928
US 1998-111950P P 19981211
US 1999-121302P P 19990223
US 1999-124939P A 19990318
US 1999-132630P P 19990505
WO 1999-US22590 W 19990928

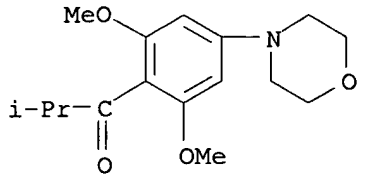
AB The present invention is directed to new, energy-efficient, photoinitiators X1=CZ1M1 wherein X1 is a conjugated system such as one or more aryl groups or substituted aryl groups; Z1 is -O, -S, an alkyl group having from one to six carbon atoms, an ester moiety, a ketone moiety, an amine moiety, an imine moiety, an ether moiety, an aryl or substituted aryl group, a metal or non-metal, or a metal or non-metal contg. group, such as a zinc-contg. group or a boron-contg. group, resp.; and M1 is an alkyl group, a substituted alkyl group, or forms a five member ring with Z1. The present invention is also directed to a method of generating a reactive species, which includes exposing one or more photoinitiators to radiation to form one or more reactive species. Also described are methods of polymg. polymerizable materials, methods of curing an unsatd. oligomer/monomer mixt., and methods of laminating using the photoinitiators of the present invention. In addn., the present invention is directed to ink compns., adhesive compns. and resins, and methods of printing using the above-described photoinitiators.

IT **263010-97-5P 263010-98-6P 263010-99-7P 263011-00-3P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(photoinitiators and applications therefor)

RN 263010-97-5 CAPLUS
CN 1-Propanone, 1-[2,6-dimethoxy-4-(4-morpholinyl)phenyl]-2-methyl- (9CI) (CA INDEX NAME)

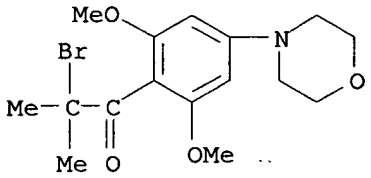



RN 263010-98-6 CAPLUS
CN 1-Propanone, 1-[2,6-dimethoxy-4-(4-morpholinyl)phenyl]-2-methyl-, hydrobromide (9CI) (CA INDEX NAME)



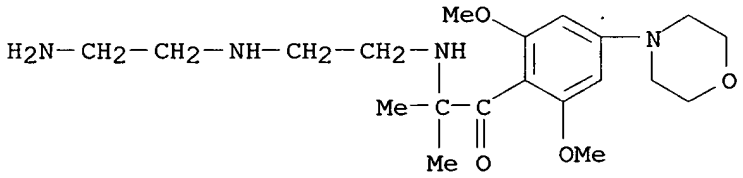
● HBr

RN 263010-99-7 CAPLUS
CN 1-Propanone, 2-bromo-1-[2,6-dimethoxy-4-(4-morpholinyl)phenyl]-2-methyl-, hydrobromide (9CI) (CA INDEX NAME)



● HBr

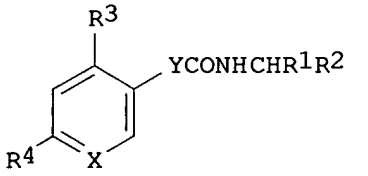
RN 263011-00-3 CAPLUS
CN 1-Propanone, 2-[[2-[(2-aminoethyl)amino]ethyl]amino]-1-[2,6-dimethoxy-4-(4-morpholinyl)phenyl]-2-methyl- (9CI) (CA INDEX NAME)



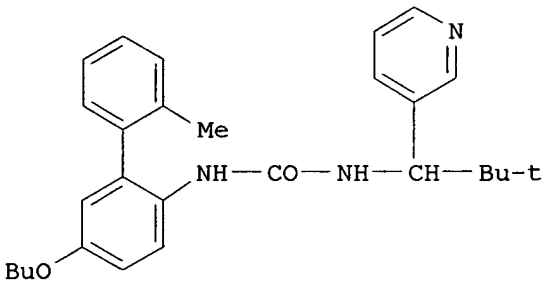
L4 ANSWER 5 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:62598 CAPLUS
DOCUMENT NUMBER: 132:107708
TITLE: Preparation of alkyl arylureas and arylacetamides with cholesterol acyl transferase inhibition effects
INVENTOR(S): Yagisawa, Hiroaki; Naito, Satoru; Takamura, Minoru; Koga, Sadaichiro
PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 67 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 2000026294 | A2 | 20000125 | JP 1999-124103 | 19990430 |

PRIORITY APPLN. INFO.: JP 1998-124386 19980507
OTHER SOURCE(S): MARPAT 132:107708
GI




I

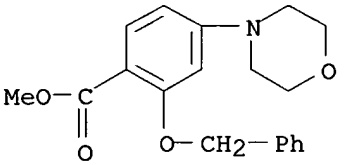



II

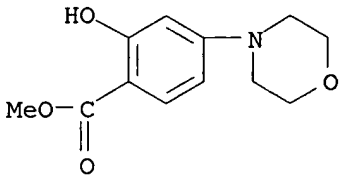
AB Title compds. [I; X = CH, N; Y = methylene and imino; R1 = H, C1-C8alkyl; R2 = 6 member heterocyclic; R3 = C6-C10 aryl; R4 = H, halogen, C1-C8 alkyl, C1-C8 alkoxy, C1-C8 alkylthio, C1-C10 alkylamino; 3-6 member cyclicamino], pharmaceutical acceptable salts are prepd. and have cholesterol acyl transferase inhibitory effects which offer as remedy agents or the preventive agents of various diseases which originate in the ACAT inhibitory effect. Thus, the title compd. II was prepd.

IT **207850-93-9P 207850-94-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of alkyl arylureas and arylacetamides with cholesterol acyl transferase inhibition effects)

RN 207850-93-9 CAPLUS
CN Benzoic acid, 4-(4-morpholinyl)-2-(phenylmethoxy)-, methyl ester (9CI) (CA INDEX NAME)



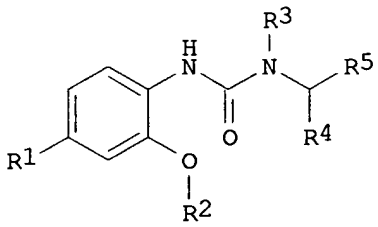

RN 207850-94-0 CAPLUS
CN Benzoic acid, 2-hydroxy-4-(4-morpholinyl)-, methyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 6 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:59963 CAPLUS
DOCUMENT NUMBER: 132:102839
TITLE: Phenylenediamine derivatives as ACAT inhibitors and their use
INVENTOR(S): Yanagisawa, Hiroaki; Takamura, Minoru; Fujioka, Tomoyuki
PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 76 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 2000026293 | A2 | 20000125 | JP 1999-124102 | 19990430 |

PRIORITY APPLN. INFO.: JP 1998-124385 19980507
OTHER SOURCE(S): MARPAT 132:102839
GI



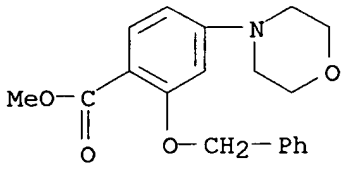
I

AB The title derivs. I [R1 = NH2, C1-6 alkylamino, di(C1-6 alkyl)amino, C3-8 cyclic amino; R2 = C1-6 alkyl, C7-14 aralkyl which may have 1 halo, C1-6 alkyl, C1-6 alkoxy, C11-6 alkylthio, NO2; R3, R4 = C, C1-6 alkyl; R5 = Ph or pyridyl which may have 1 halo, C1-6 alkyl, C1-6 alkoxy, C11-6 alkylthio, NO2] or their pharmacol. acceptable salts are prepd. I suppress lipid peroxidn. and inhibit ACAT, and are useful for prevention and treatment of hyperlipemia, atherosclerosis, etc. IC50 of N-[2-benzyloxy-4-(1-pyrrolidinyl)phenyl]-N'-[2,2-dimethyl-1-(3-pyridyl)propyl]urea (II; prepn. given) against ACAT of rat liver microsome was 197 ng/mL. Capsules of II were also prepd.

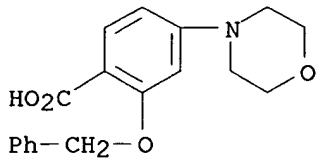
IT **207850-93-9P**, Methyl 2-benzyloxy-4-morpholinobenzoate
**255871-20-6P 255871-22-8P 255871-34-2P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of phenylenediamine derivs. as ACAT inhibitors)

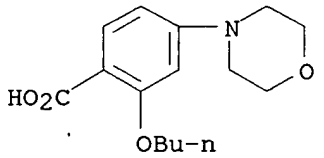
RN 207850-93-9 CAPLUS
CN Benzoic acid, 4-(4-morpholinyl)-2-(phenylmethoxy)-, methyl ester (9CI) (CA INDEX NAME)



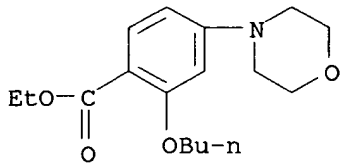
RN 255871-20-6 CAPLUS
CN Benzoic acid, 4-(4-morpholinyl)-2-(phenylmethoxy)- (9CI) (CA INDEX NAME)



RN 255871-22-8 CAPLUS
CN Benzoic acid, 2-butoxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



RN 255871-34-2 CAPLUS
CN Benzoic acid, 2-butoxy-4-(4-morpholinyl)-, ethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:595169 CAPLUS
DOCUMENT NUMBER: 131:228641

TITLE: Preparation of benzofurylpyrone derivatives and effects on lipid metabolism

INVENTOR(S): Naniwa, Yoshimitsu; Imai, Hiroshi; Ida, Tomohide; Muratani, Emiko; Kitai, Kazuo; Sugimoto, Yoshinori; Kosugi, Tomomi; Takeuchi, Akiko; Watanabe, Kunihito; Tomiyama, Takami; Takeuchi, Tomio; Hamada, Masa

PATENT ASSIGNEE(S): Teijin Limited, Japan; Microbial Chemistry Research Foundation

SOURCE: PCT Int. Appl., 176 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

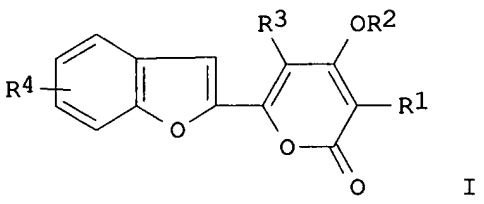
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9946262 | A1 | 19990916 | WO 1999-JP1225 | 19990312 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2323456 | AA | 19990916 | CA 1999-2323456 | 19990312 |
| AU 9932773 | A1 | 19990927 | AU 1999-32773 | 19990312 |
| BR 9908706 | A | 20001121 | BR 1999-8706 | 19990312 |
| EP 1063235 | A1 | 20001227 | EP 1999-939191 | 19990312 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| NO 2000004517 | A | 20000911 | NO 2000-4517 | 20000911 |

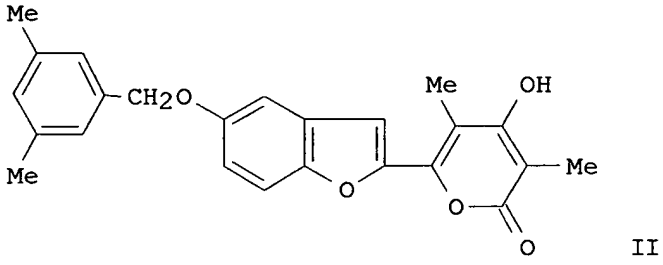
PRIORITY APPLN. INFO.: JP 1998-61356 A 19980312
WO 1999-JP1225 W 19990312

OTHER SOURCE(S): MARPAT 131:228641

GI



I



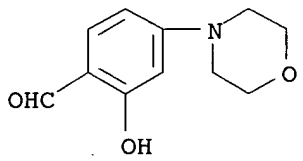
II

AB Title compds. [I; wherein R1 represents hydrogen or C1-5 alkyl; R2 represents hydrogen, -CO-R5 or SO2R6; R3 represents hydrogen, C1-5 alkyl, etc.; and R4 is a substituent of a definite structure attached to the 4-, 5-, 6- or 7-position of the benzofuran ring] and salts thereof are prepd. and tested as remedies for hyperglyceridemia, lipid metab. improving agents, preventives/remedies for arteriosclerosis, etc. Thus, the title compd. II was prepd.

IT **70362-07-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of benzofurylpyrones and effects on lipid metab.)

RN 70362-07-1 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 37 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:253739 CAPLUS

DOCUMENT NUMBER: 130:325088

TITLE: Preparation of acylhydrazone derivatives as Maillard reaction inhibitors and active oxygen scavengers

INVENTOR(S): Inoue, Hitoshi; Horigome, Masato; Kinoshita, Nobuhiro; Shibayama, Toshie

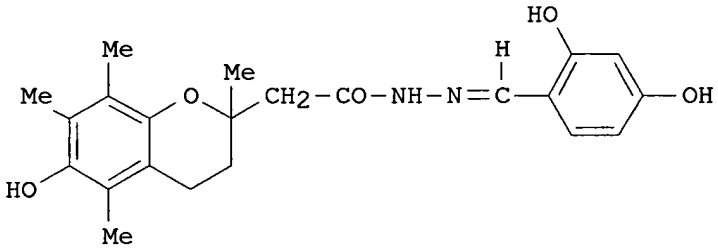
PATENT ASSIGNEE(S): Nisshin Flour Milling Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 80 pp.

CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 11106371 | A2 | 19990420 | JP 1998-177222 | 19980624 |

PRIORITY APPLN. INFO.: JP 1997-179754 19970704
OTHER SOURCE(S): MARPAT 130:325088
GI



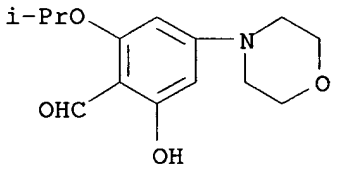
I

AB The title compds. XWY [X = benzene ring, chroman ring, etc.; Y = (un)substituted Ph, etc.; W = CONHN:CH, etc.] are prepd. The title compd. I in vitro showed IC50 of 4.2 .mu.M against the Maillard reaction.

IT **223723-57-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of acylhydrazone derivs. as Maillard reaction inhibitors and active oxygen scavengers)

RN 223723-57-7 CAPLUS

CN Benzaldehyde, 2-hydroxy-6-(1-methylethoxy)-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)

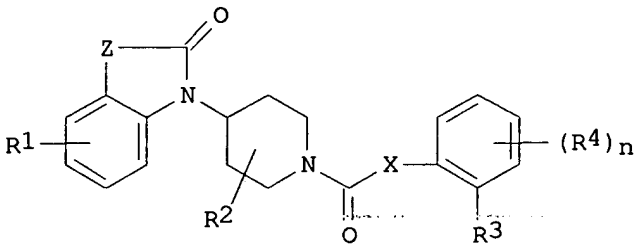


L4 ANSWER 9 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:222447 CAPLUS
DOCUMENT NUMBER: 130:237576
TITLE: Preparation of benzoxazinone or quinolinone compounds as tocolytic oxytocin receptor antagonists
INVENTOR(S): Bell, Ian M.; Freidinger, Roger M.; Perlow, Debra S.; Sparks, Michelle A.; Stauffer, Kenneth; Williams, Peter D.
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Brit. UK Pat. Appl., 139 pp.

CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| GB 2326410 | A1 | 19981223 | GB 1998-13103 | 19980617 |
| US 6090805 | A | 20000718 | US 1998-95232 | 19980610 |

PRIORITY APPLN. INFO.: US 1997-50139P P 19970618
GB 1998-229 A 19980106
OTHER SOURCE(S): MARPAT 130:237576
GI

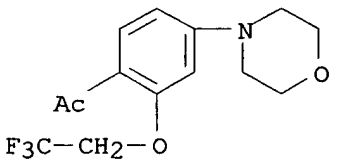



I

AB The title compds. I [Z = CH2O where O is attached directly to the carbonyl, CH:CH, CH2CH2; X = O, CH2, CF2; R1 = H, halo, alkyl; R2 = H, alkyl, CH2OH, CONH2; R3 = H, alkoxy, = (un)substituted Ph, etc.; R4 = H, halo, alkoxy, etc.], tocolytic oxytocin receptor antagonists, were prepd. E.g, 1-(1-(2-(2,2,2-trifluoroethoxy)-4-fluorophenylacetyl)piperidin-4-yl)-4H-3,1-benzoxazin-2(1H)-one was prepd. in several steps.

IT **221286-25-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of benzoxazinone or quinolinone compds. as tocolytic oxytocin receptor antagonists)

RN 221286-25-5 CAPLUS
CN Ethanone, 1-[4-(4-morpholinyl)-2-(2,2,2-trifluoroethoxy)phenyl]- (9CI) (CA INDEX NAME)




L4 ANSWER 10 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:216914 CAPLUS
DOCUMENT NUMBER: 130:237475
TITLE: Preparation of substituted chroman derivatives and

their effects at the h5-HT1B receptor

INVENTOR(S): Berg, Stefan; Nylof, Martin; Ross, Svante; Thorberg, Seth-Olov

PATENT ASSIGNEE(S): Astra Aktiebolag, Swed.

SOURCE: PCT Int. Appl., 80 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

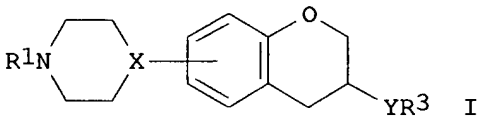
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9914212 | A1 | 19990325 | WO 1998-SE1603 | 19980909 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| ZA 9807813 | A | 19990318 | ZA 1998-7813 | 19980827 |
| CA 2304037 | AA | 19990325 | CA 1998-2304037 | 19980909 |
| AU 9891932 | A1 | 19990405 | AU 1998-91932 | 19980909 |
| AU 734580 | B2 | 20010614 | | |
| BR 9812238 | A | 20000718 | BR 1998-12238 | 19980909 |
| EP 1025095 | A1 | 20000809 | EP 1998-944377 | 19980909 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| JP 2001516754 | T2 | 20011002 | JP 2000-511761 | 19980909 |
| US 6479497 | B1 | 20021112 | US 1998-171570 | 19981021 |
| NO 2000001402 | A | 20000509 | NO 2000-1402 | 20000317 |

PRIORITY APPLN. INFO.: SE 1997-3377 A 19970918
WO 1998-SE1603 W 19980909

OTHER SOURCE(S): MARPAT 130:237475

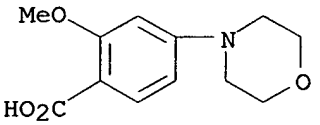
GI




I

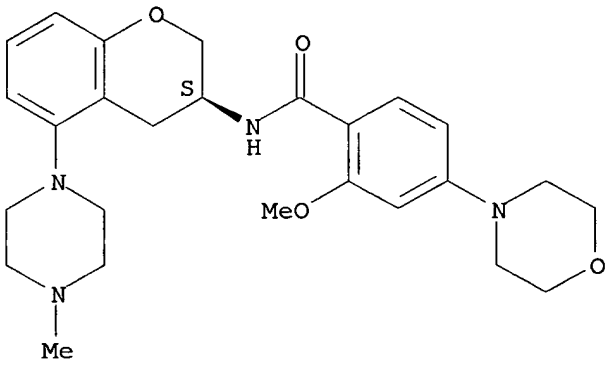
AB Piperidyl- or piperazinyl-substituted dihydro-2H-1-benzopyran derivs. I [X = N, CH; Y = NR2CH2, CH2NR2, NR2CO, CONR2, NR2SO2, NR2CONR2 wherein R2 = H, C1-C6 alkyl; R1 = H, C1-C6 alkyl, C3-C6 cycloalkyl; R3 = C1-C6 alkyl, C3-C6 cycloalkyl, (CH2)n-aryl, wherein aryl is Ph or a heteroarom. ring contg. one or two heteroatoms selected from N, O and S and which may be mono- or di-substituted; n = 0-4], possessing selective effects at the h5-HT1B receptor, were prepd. E.g., reaction of (S)-N-[5-(4-methylpiperazin-1-yl)-3,4-dihydro-2H-1-benzopyran-3-yl]-4-(piperazin-1-yl)benzamide with 2-benzyloxyethyl mesylate in presence of K2CO3 gave (S)-N-[5-(4-methylpiperazin-1-yl)-3,4-dihydro-2H-1-benzopyran-3-yl]-4-[4-(2-benzyloxyethyl)piperazin-1-yl]benzamide.

IT **221360-90-3P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of substituted chroman derivs. and their effects at the h5-HT1B receptor)
RN 221360-90-3 CAPLUS
CN Benzoic acid, 2-methoxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)




IT **221360-91-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of substituted chroman derivs. and their effects at the h5-HT1B receptor)
RN 221360-91-4 CAPLUS
CN Benzamide, N-[(3S)-3,4-dihydro-5-(4-methyl-1-piperazinyl)-2H-1-benzopyran-3-yl]-2-methoxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



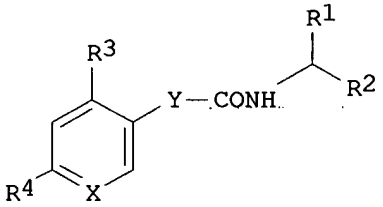

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:341545 CAPLUS
DOCUMENT NUMBER: 129:27897
TITLE: Preparation of arylureas or arylmethylcarbamoyl derivatives as acyl-CoA-cholesterol acyltransferase inhibitors
INVENTOR(S): Yanagisawa, Hiroaki; Naito, Satoru; Takamura, Makoto; Koga, Teiichiro
PATENT ASSIGNEE(S): Sankyo Co., Ltd., Japan; Yanagisawa, Hiroaki; Naito, Satoru; Takamura, Makoto; Koga, Teiichiro

SOURCE: PCT Int. Appl., 157 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9821185 | A1 | 19980522 | WO 1997-JP4053 | 19971107 |
| W: AU, CA, CN, CZ, HU, ID, IL, KR, MX, NO, NZ, RU, US | | | | |
| RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| AU 9748850 | A1 | 19980603 | AU 1997-48850 | 19971107 |
| JP 10182608 | A2 | 19980707 | JP 1997-305109 | 19971107 |

PRIORITY APPLN. INFO.: JP 1996-296870 19961108
WO 1997-JP4053 19971107
OTHER SOURCE(S): MARPAT 129:27897
GI



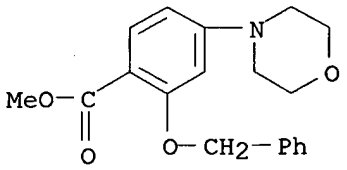

I

AB The title compds. [I; X = CH or N; Y = CH2 or imino; R1 = H or alkyl; R2 = N-contg. heteroaryl; R3 = (un)substituted aryl; R4 = H, halo, alkyl, alkoxy, alkylthio, aryl, aryloxy, arylthio, aralkyl, aralkyloxy, aralkylthio, dialkylamino, cyclic amino, etc.] or pharmacol. acceptable salts thereof are prepd. I, possessing acyl-CoA-cholesterol acyltransferase (ACAT) inhibitory activity, are useful for prevention and treatment of hyperlipemia, atherosclerosis, and related diseases. Thus, 2-(2-methylphenyl)-4-phenylbenzoic acid (prepn. given) was reacted with 3-(1-amino-2,2-dimethylpropyl)pyridine in the presence of diphenylphosphorylazide and Et3N to give 64% I (Y = NH, R1 = tert-Bu, R2 = 3-pyridyl, R3 = o-MeC6H4, R4 = Ph, X = CH) (II), which showed IC50 of 104 ng/mL against ACAT. A hard capsule formulation contg. II was also prepd.

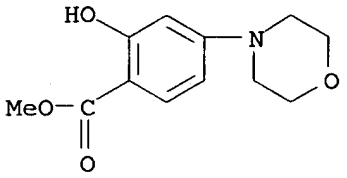
IT **207850-93-9P 207850-94-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of arylureas or arylmethylcarbamoyl derivs. as acyl-CoA-cholesterol acyltransferase inhibitors)

RN 207850-93-9 CAPLUS

CN Benzoic acid, 4-(4-morpholinyl)-2-(phenylmethoxy)-, methyl ester (9CI) (CA INDEX NAME)



RN 207850-94-0 CAPLUS
CN Benzoic acid, 2-hydroxy-4-(4-morpholinyl)-, methyl ester (9CI) (CA INDEX NAME)

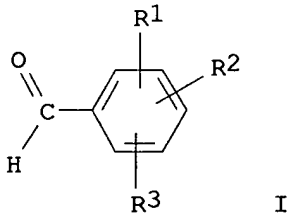


REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:150310 CAPLUS
DOCUMENT NUMBER: 124:206893
TITLE: Use of benzaldehydes to mark hydrocarbons and method for their determination
INVENTOR(S): Kraeh, Claudia; Schloesser, Ulrike; Beck, Karin Heidrun; Mayer, Udo
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Ger. Offen., 13 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 4424712 | A1 | 19960118 | DE 1994-4424712 | 19940713 |
| WO 9602613 | A1 | 19960201 | WO 1995-EP2558 | 19950703 |
| W: AU, BG, BR, BY, CA, CN, CZ, FI, HU, JP, KR, KZ, MX, NO, NZ, PL, RU, SG, SK, UA, US | | | | |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| CA 2195019 | AA | 19960201 | CA 1995-2195019 | 19950703 |
| AU 9529263 | A1 | 19960216 | AU 1995-29263 | 19950703 |
| AU 686838 | B2 | 19980212 | | |
| EP 770119 | A1 | 19970502 | EP 1995-924960 | 19950703 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | | |
| CN 1155898 | A | 19970730 | CN 1995-194718 | 19950703 |
| HU 76687 | A2 | 19971028 | HU 1997-62 | 19950703 |
| JP 10502693 | T2 | 19980310 | JP 1995-504633 | 19950703 |
| BR 9508401 | A | 19980519 | BR 1995-8401 | 19950703 |
| NO 9700126 | A | 19970310 | NO 1997-126 | 19970110 |
| FI 9700108 | A | 19970312 | FI 1997-108 | 19970110 |

PRIORITY APPLN. INFO.: DE 1994-4424712 19940713
WO 1995-EP2558 19950703
OTHER SOURCE(S): MARPAT 124:206893
GI

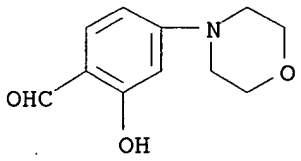


I

AB Benzaldehydes of formula I (where R1, R2, and R3 are H, hydroxide, C1-15 alkyl, C1-15 alkoxy, cyano, nitro, or a group of formula NR4R5 or COOR6, R4 is a substituted C1-15 alkyl or a rest of formula L-NX1-X2, where L is C2-8 alkylene and X1 and X2 independently C1-8 alkyl or forms with them a heterocyclic rest, and R6 is hydrogen, optionally substituted C1-15 alkyl or L-NX1-X2) are suitable for use as markers for hydrocarbons. The compds. are easily detd.

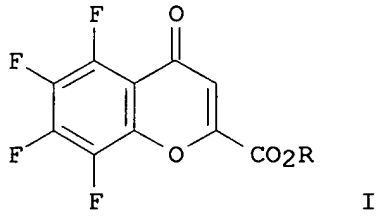
IT **70362-07-1**
RL: ANT (Analyte); MOA (Modifier or additive use); ANST (Analytical study); USES (Uses)
(marker; use of benzaldehydes to mark hydrocarbons and method for their detn.)

RN 70362-07-1 CAPLUS
CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 13 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:295954 CAPLUS
DOCUMENT NUMBER: 122:132911
TITLE: Reaction of 2-ethoxycarbonyl(carboxy)-5,6,7,8-tetrafluorochromones with N-nucleophiles
AUTHOR(S): Saloutin, V. I.; Bazyl, I. T.; Skryabina, Z. E.; Chupakhin, O. N.
CORPORATE SOURCE: Inst. Org. Synthesis, Ural Branch Russian Academy Sciences, Ekaterinburg, 620219, Russia
SOURCE: Izvestiya Akademii Nauk, Seriya Khimicheskaya (1994), (5), 904-7
CODEN: IASKEA
PUBLISHER: Institut Organicheskoi Khimii im. N. D. Zelinskogo Rossiiskoi Akademii Nauk
DOCUMENT TYPE: Journal

LANGUAGE: Russian
GI



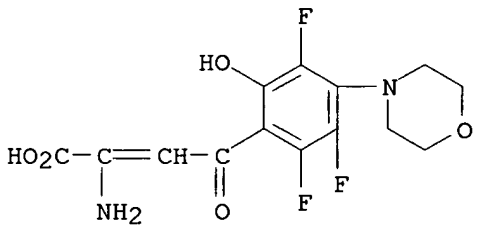
I

AB The direction of reactions of title compds. (I; R = Et, H) with ammonia, methylamine, hexylamine, and aniline depends on the inductive effect of CO2R and on the basicity of the amine. Nucleophilic arom. replacement of fluorine takes place in the reaction of I (R = Et) with secondary amines (morpholine, N-methylpiperazine) and ethylenediamine.

IT **161037-57-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 161037-57-6 CAPLUS

CN 2-Butenoic acid, 2-amino-4-oxo-4-[2,3,5-trifluoro-6-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)

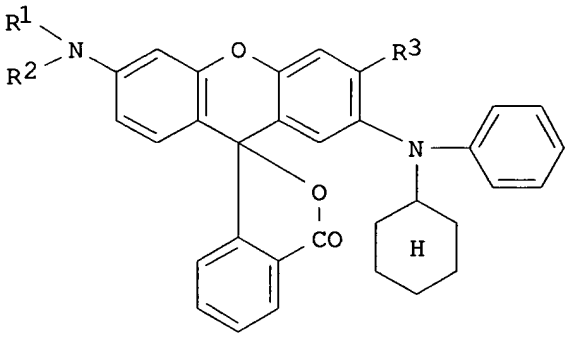


L4 ANSWER 14 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:545415 CAPLUS
DOCUMENT NUMBER: 121:145415
TITLE: Recording material using fluoran compounds
INVENTOR(S): Ootsuji, Atsuo; Nakatsuka, Masakatsu; Hasegawa, Kyoharu; Yoshikawa, Kazuyoshi
PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| JP 05278325 | A2 | 19931026 | JP 1992-76570 | 19920331 |
| JP 3048274 | B2 | 20000605 | | |

GI



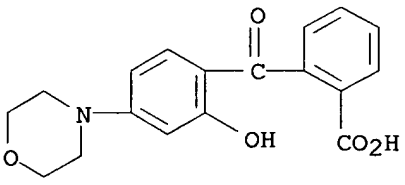
I

AB In the title recording material utilizing an electron donating color former and an electron accepting compd. to give color by contacting them, the color former employs .gtoreq.1 fluoran compd. I (R1, R2 = C1-12 alkyl, C3-12 alkoxy, C5-12 cycloalkyl; R and R2 may joint to form a 5-6-membered heterocycle with N; R3 = H, C1-4 alkyl). The recording material shows both good material and image storage stability.

IT **55165-07-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, electron donating color former from, for recording material)

RN 55165-07-6 CAPLUS

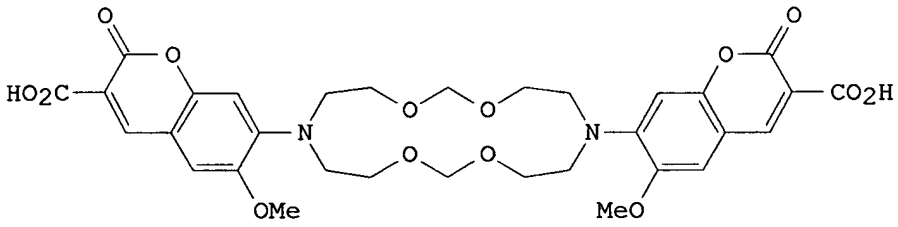
CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 15 OF 37 CAPLUS COPYRIGHT 2002 ACS

| | |
|---|---|
| ACCESSION NUMBER: | 1994:265044 CAPLUS |
| DOCUMENT NUMBER: | 120:265044 |
| TITLE: | Synthesis and spectral properties of new fluorescent probes for potassium |
| AUTHOR(S): | Crossley, Roger; Goolamali, Zia; Gosper, Jeffrey J.; Sammes, Peter G. |
| CORPORATE SOURCE: | Dep. Chem., Brunel Univ., Uxbridge/Middlesex, UB8 3PH, UK |
| SOURCE: | Journal of the Chemical Society, Perkin Transactions 2: Physical Organic Chemistry (1972-1999) (1994), (3), 513-20<br>CODEN: JCPKBH; ISSN: 0300-9580 |

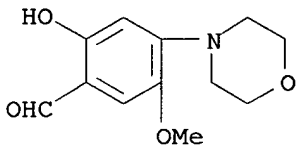
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



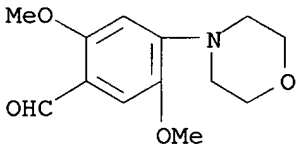
I

AB Studies on the prepn. and properties of two new, selective fluorescent probes CD18, (I, R = CO2H) and C18 (II, R = H) for potassium are described. The probes incorporate the 1,10-diaza-18-crown-6 chelating group for the ion and the coumarin group as the fluorophore. The probes are compared with the known reagent PBFI. CD18 shows considerably greater selectivity for potassium over sodium than PBFI.

IT **154519-08-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and condensation of, with di-Me malonate)
RN 154519-08-1 CAPLUS
CN Benzaldehyde, 2-hydroxy-5-methoxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



IT **154519-07-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and demethylation of)
RN 154519-07-0 CAPLUS
CN Benzaldehyde, 2,5-dimethoxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)

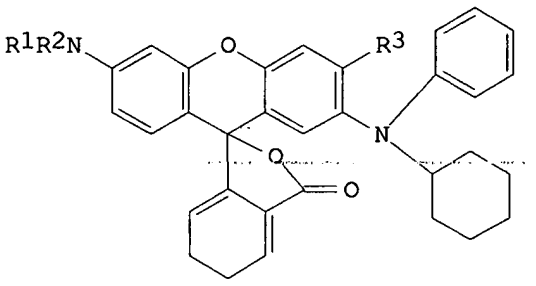


L4 ANSWER 16 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:149009 CAPLUS
DOCUMENT NUMBER: 120:149009
TITLE: Fluoran compound for recording material

INVENTOR(S): Ootsuji, Atsuo; Nakatsuka, Masakatsu
PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 05247051 | A2 | 19930924 | JP 1992-324346 | 19921203 |
| JP 3137473 | B2 | 20010219 | | |

PRIORITY APPLN. INFO.: JP 1991-327411 A1 19911211
OTHER SOURCE(S): MARPAT 120:149009
GI

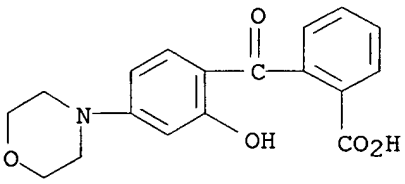


I

AB The fluoran compd. consists of I (R1-2 = C1-12 alkyl, C3-12 alkoxyalkyl, C5-12 cycloalkyl, NR1R2 may form 5- or 6-membered heterocyclic group; R3 = C1-4 alkyl). The fluoran compd. is useful for thermal or pressure-sensitive recording. The fluoran compd. shows good red- or green-coloring.

IT **55165-07-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyclohexyldiphenylamine derivs. in prepn. of fluoran compds.)

RN 55165-07-6 CAPLUS
CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)

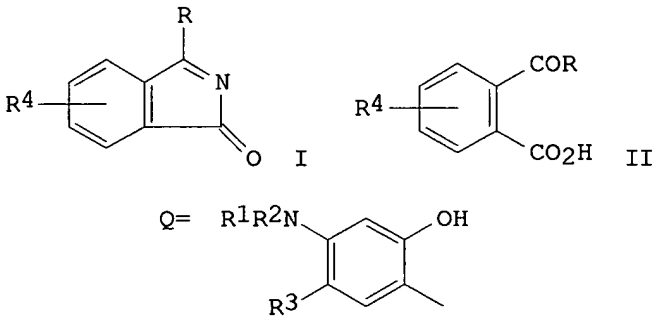


L4 ANSWER 17 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:55599 CAPLUS
DOCUMENT NUMBER: 112:55599

TITLE: Preparation and hydrolysis of 3-(4-amino-2-hydroxyphenyl)-1-oxo-isoindolenines
INVENTOR(S): Kranz, Joachim; Landmann, Bernd; Mayer, Udo
PATENT ASSIGNEE(S): BASF A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 7 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 3800577 | A1 | 19890720 | DE 1988-3800577 | 19880112 |
| EP 327792 | A2 | 19890816 | EP 1989-100028 | 19890103 |
| EP 327792 | A3 | 19891004 | | |
| EP 327792 | B1 | 19931222 | | |
| R: CH, DE, FR, GB, IT, LI | | | | |
| US 4904798 | A | 19900227 | US 1989-295462 | 19890110 |
| JP 01213261 | A2 | 19890828 | JP 1989-2964 | 19890111 |

PRIORITY APPLN. INFO.: DE 1988-3800577 19880112
OTHER SOURCE(S): CASREACT 112:55599; MARPAT 112:55599
GI

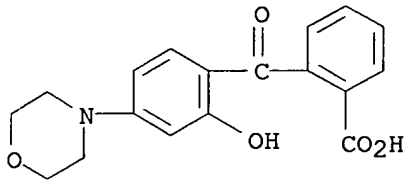



AB The title compds. [I; R = Q; R1 = H, (un)substituted C1-12 alkyl, C5-8 cycloalkyl, Ph; R2 = H, (un)substituted C1-6 alkyl; NR1R2 = morpholino, pyrrolidino, piperdino; R3 = H, Me; R4 = H, Cl, C1-4 alkyl, NO2] were prepd. by condensation of 3-aminophenols QH with 3-amino-1-oxo-isoindolenines I (R = NH2, R4 as above) in the presence of acids, and hydrolized to II (R and R4 as defined). Thus, 4,3-Me(EtNH)C6H3OH was heated 1 h at 120.degree. with I.HCl (R = NH2, R4 = H) in DMF to give I (R = Q, R1 = Et, R2 = R4 = H, R3 = Me) which was refluxed 5 h in 20% aq. KOH to give II (R, R1, R2, R3, R4 unchanged).

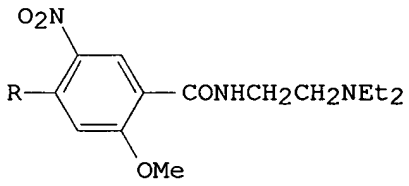
IT **55165-07-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 55165-07-6 CAPLUS

CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 18 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:18106 CAPLUS
DOCUMENT NUMBER: 110:18106
TITLE: Antiemetic activity and structural features of 4,5-substituted 2-methoxy-N-(2-diethylaminoethyl)benzamides
AUTHOR(S): Mukhomorov, V. K.; Semenova, G. K.; Shagoyan, M. G.
CORPORATE SOURCE: Voenno-Med. Akad., Leningrad, USSR
SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1988), 22(9), 1108-11
CODEN: KHFZAN; ISSN: 0023-1134
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 110:18106
GI

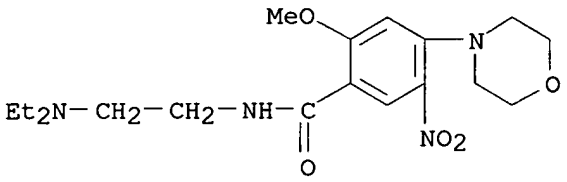


I

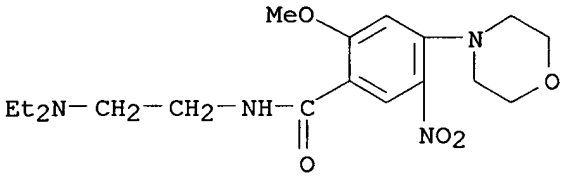
AB I (R = H, NMe2, NH2, NEt2, morpholinyl, NO2, etc.) were prepd.; e.g., I (R = NHCH2CH:CH2) was prepd. by the reaction of I (R = NO2) with allylamine at 10.degree.. The antiemetic activity of I at 0.1-2.0 mg/kg was evaluated in dogs by their capacity to prevent apomorphine-induced vomiting. A correlation equation was derived, which showed a relation between the antiemetic activity of the substituted benzamides and the Verlupa L parameters for substituents at position 4. The distance between the substituent at position 4 and the cation head (N+Et2) in the aliph. chain was 9.2 .ANG..

IT **118137-37-4P 118137-48-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and antiemetic activity of, structure in relation to)

RN 118137-37-4 CAPLUS
CN Benzamide, N-[2-(diethylamino)ethyl]-2-methoxy-4-(4-morpholinyl)-5-nitro- (9CI) (CA INDEX NAME)



RN 118137-48-7 CAPLUS
CN Benzamide, N-[2-(diethylamino)ethyl]-2-methoxy-4-(4-morpholinyl)-5-nitro-, monohydrochloride (9CI) (CA INDEX NAME)



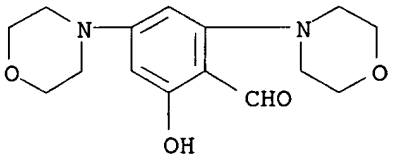
● HCl

L4 ANSWER 19 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:494747 CAPLUS
DOCUMENT NUMBER: 109:94747
TITLE: Dibasic spirodipyran color formers
INVENTOR(S): Eichinger, Karl; Hartmann, Friedrich
PATENT ASSIGNEE(S): Koreska Licensing G.m.b.H., Austria
SOURCE: Austrian, 8 pp.
CODEN: AUXXAK
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

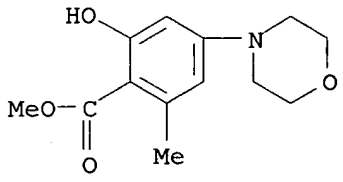
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| AT 385272 | B | 19880310 | AT 1986-865 | 19860402 |
| AT 8600865 | A | 19870815 | | |

OTHER SOURCE(S): MARPAT 109:94747
GI For diagram(s), see printed CA Issue.
AB The title compds. I (A is an arom. system; R1, R2 = H, aryl, alkyl, or jointly form an aliph. carbocyclic ring; R3, R4 = alkyl or NR3R4 = pyrrolidino, piperidino, morpholino, thiomorpholino, or N'-substituted piperazinyl), useful as color formers in carbonless copying paper and heat- and pressure-sensitive recording materials, are prepd. by the reaction of pyrylium salts with basically substituted salicylaldehydes in lower aliph. alcs. or ketones at the solvent boiling temp. 3,5-Dimorpholinophenol was subjected to the Vilsmeier reaction with POCl3 and DMF, the obtained dimorpholinosalicylaldehyde reacted with 2,3-dimethylbenzo[b]pyrylium trichlorozincate in MeOH for 3 h under reflux, forming II, a bright yellow crystal powder, which developed a blue-violet color when contacted with acidic materials.

IT **115948-77-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with dimethylbenzopyrylium trichlorozincate)
RN 115948-77-1 CAPLUS
CN Benzaldehyde, 2-hydroxy-4,6-di-4-morpholinyl- (9CI) (CA INDEX NAME)



L4 ANSWER 20 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1986:88194 CAPLUS
DOCUMENT NUMBER: 104:88194
TITLE: Chemistry of 4-trimethylsilyl-3-dialkylaminocrotonate esters and the cycloaromatization reactions with enamines
AUTHOR(S): Kang, G. J.; Chan, T. H.
CORPORATE SOURCE: Dep. Chem., McGill Univ., Montreal, QC, H3A 2K6, Can.
SOURCE: Canadian Journal of Chemistry (1985), 63(11), 3102-10
CODEN: CJCHAG; ISSN: 0008-4042
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 104:88194
AB Me 4-trimethylsilyl-3-dialkylaminocrotonate is synthesized by the silylation of Me 3-dialkylaminocrotonate. It reacts with carbonyl electrophiles at its .gamma.-position. The unusual regiochem. of this reaction is studied and rationalized. It reacts with enamines derived from acyclic ketones to give arom. compds. in a 3C + 3C combination and with enamines derived from cycloketones of 5- to 8-membered rings to give arom. compds. in a 4C + 2C combination. A mechanism for this cycloaromatization reaction is proposed.
IT **87565-78-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and decarboxylation of)
RN 87565-78-4 CAPLUS
CN Benzoic acid, 2-hydroxy-6-methyl-4-(4-morpholinyl)-, methyl ester (9CI) (CA INDEX NAME)

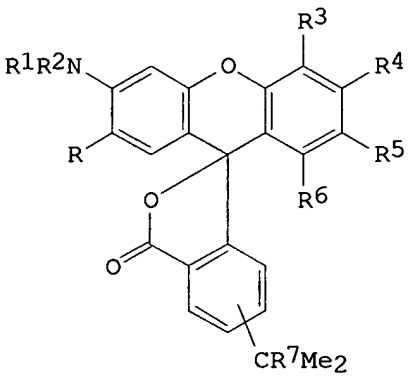


L4 ANSWER 21 OF 37 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1985:525013 CAPLUS
DOCUMENT NUMBER: 103:125013
TITLE: Fluoran color formers
INVENTOR(S): Mayer, Udo; Oberlinner, Andreas
PATENT ASSIGNEE(S): BASF A.-G. , Fed. Rep. Ger.
SOURCE: Ger. Offen., 27 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 3337387 | A1 | 19850425 | DE 1983-3337387 | 19831014 |
| EP 138177 | A2 | 19850424 | EP 1984-112011 | 19841006 |
| EP 138177 | A3 | 19850605 | | |
| EP 138177 | B1 | 19880107 | | |
| R: CH, DE, FR, GB, IT, LI | | | | |
| JP 60101152 | A2 | 19850605 | JP 1984-212744 | 19841012 |
| US 4603202 | A | 19860729 | US 1984-660128 | 19841012 |

PRIORITY APPLN. INFO.: DE 1983-3337387 19831014
GI

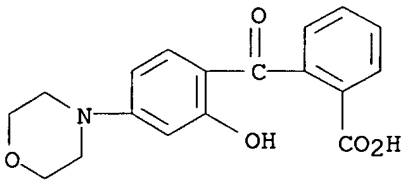



I

AB Fluoran color formers with good soly. in microencapsulation solvents and reduced migration in support materials are represented by general structure I, where R = H or Me; R1 = H or (un)substituted alkyl; R2 = H, (un)substituted alkyl, cycloalkyl, or (un)substituted Ph, or R1R2N = 5- or 6-membered heterocycle; R3 and R4 = H, alkyl, alkoxy, or halogen; R5 = H, halogen, alkyl, etc.; R6 = H, alkyl, or halogen; and R7 = C1-5 alkyl. I are useful in heat- or pressure-sensitive recording systems and produce yellow, orange, red, blue, olive, or black colors when in contact with electron acceptors. Thus, treatment of 4-tert-butyl-2-(2-hydroxy-5-methylbenzoyl)benzoic acid [98233-18-2] in CHCl3 with POCl3 at room temp. and then with 3-(ethylamino)-4-methylphenol [120-37-6] at reflux gave 5'(6')-tert-butyl-3-(ethylamino)-2,7-dimethylfluoran [98181-33-0], which produced deep orange copies when microencapsulated and used in copying paper. Numerous other I were similarly prepd.

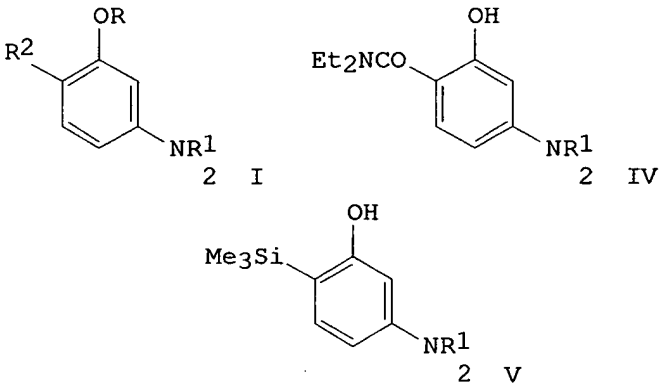
IT **98181-30-7**
RL: RCT (Reactant); RACT (Reactant or reagent)

(cyclocondensation reaction of, with naphthol)
RN 98181-30-7 CAPLUS
CN Benzoic acid, 4(or 5)-(1,1-dimethylethyl)-2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



D1—Bu-t

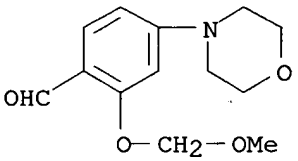
L4 ANSWER 22 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:453416 CAPLUS
DOCUMENT NUMBER: 103:53416
TITLE: Effect of different dialkylamino groups on the regioselectivity of lithiation of O-protected 3-(dialkylamino)phenols
AUTHOR(S): Skowronska-Ptasinska, Maria; Verboom, Willem; Reinhoudt, David N.
CORPORATE SOURCE: Lab. Org. Chem., Twente Univ. Technol., Enschede, 7500 AE, Neth.
SOURCE: Journal of Organic Chemistry (1985), 50(15), 2690-8
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 103:53416
GI



AB The lithiation regiochem. of the title compds. (I; R = Me, MeOCH2, CONEt2; R2 = H, Me, CHO, Me3Si; R1 = Me; R12 N = pyrrolidino, piperidino, morpholino) depends on the relative ortho-directing capacities of both R

and NR12. With the moderate ortho-directing MeO group lithiation occurs exclusively [with I (R2 = H, R = Me, R12N = piperidino, morpholino)] or predominantly [with I (R2 = H, R = Me, R12N = pyrrolidino)] ortho to both substituents. The site of lithiation of I (R2 = H, R = CH2OMe, R12N = pyrrolidino, piperidino, morpholino) depends on both the solvent and R12N. For I [R2 = H, R = CONEt2, R1 = Me (II); R2 = H, R = CONEt2, R12N = pyrrolidino (III), piperidino], which contains the strong ortho-directing carbamoyloxy group, lithiation occurs at the least hindered ortho position. In the absence of an electrophile (e.g., DMF), the lithiated derivs. of carbamates II, III, and I (R2 = Me3Si, R = CONEt2, R12N = pyrrolidino; R2 = Me3Si, R = CONEt2, R1 = Me) rearrange stereospecifically to the corresponding benzamides IV (R1 = Me; NR12 = pyrrolidino) and V (R1 = Me; NR12 = pyrrolidino), resp.

IT **96649-12-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 96649-12-6 CAPLUS
CN Benzaldehyde, 2-(methoxymethoxy)-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



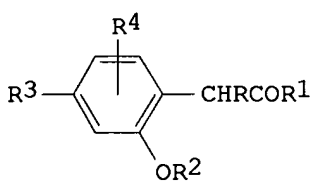

L4 ANSWER 23 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:575385 CAPLUS
DOCUMENT NUMBER: 99:175385
TITLE: Aminophenol acetic acid
INVENTOR(S): Wenk, Paul; Breitenstein, Werner; Baumann, Marcus
PATENT ASSIGNEE(S): Ciba-Geigy A.-G. , Switz.
SOURCE: Brit. UK Pat. Appl., 45 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| GB 2109373 | A1 | 19830602 | GB 1982-30352 | 19821025 |
| GB 2109373 | B2 | 19860115 | | |
| EP 82109 | A2 | 19830622 | EP 1982-810440 | 19821022 |
| EP 82109 | A3 | 19850417 | | |
| R: AT, BE, CH, DE, FR, IT, LI, LU, NL, SE | | | | |
| FI 8203641 | A | 19830429 | FI 1982-3641 | 19821025 |
| ES 516843 | A1 | 19850516 | ES 1982-516843 | 19821026 |
| DK 8204760 | A | 19830429 | DK 1982-4760 | 19821027 |
| NO 8203586 | A | 19830429 | NO 1982-3586 | 19821027 |
| AU 8289824 | A1 | 19830505 | AU 1982-89824 | 19821027 |
| ZA 8207845 | A | 19830629 | ZA 1982-7845 | 19821027 |
| HU 30695 | O | 19840328 | HU 1982-3449 | 19821027 |
| JP 58150544 | A2 | 19830907 | JP 1982-191738 | 19821028 |

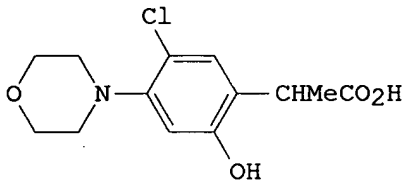
| | | | | | |
|---|---|---|---|---|---|
| DD 208798 | A5 | 19840411 | DD 1982-244347 | 19821028 |
| ES 529377 | A1 | 19851101 | ES 1984-529377 | 19840201 |
| ES 529378 | A1 | 19851101 | ES 1984-529378 | 19840201 |
| ES 529379 | A1 | 19851101 | ES 1984-529379 | 19840201 |
| ES 529380 | A1 | 19851201 | ES 1984-529380 | 19840201 |
| ES 529376 | A1 | 19860601 | ES 1984-529376 | 19840201 |
| ES 537285 | A1 | 19850816 | ES 1984-537285 | 19841031 |

PRIORITY APPLN. INFO.: CH 1981-6883 19811028

GI




I



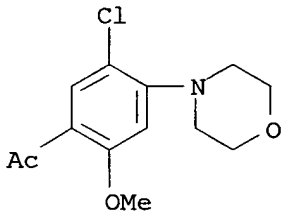

III

AB Phenylacetic acids I (R = H1, aliph.; R1 = OH, esterified OH, amino; R2 = H, acyl; R3 = amino; R4 = H, substituent) were prepd. as inflammation inhibitors, analgesics,and sunscreens (no data). Thus, treating imidazo[1,2-a]pyridin-2(3H)-one-HCl with maleic acid gave its 3-(1,2-diacarboxyethyl) deriv. which was treated with MeCOCH:CH2 and hydrolyzed to give 4-methyl-3-(3-oxobutyl)maleic anhydride (II). II was treated with morpholinium benzoate to give 3-methyl-6-morpholinobenzofuran-2(3H)-one which was converted to its 5-chloro deriv. and hydrolyzed to III.

IT **87203-06-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and hydrolysis of)

RN 87203-06-3 CAPLUS

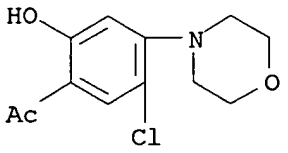
CN Ethanone, 1-[5-chloro-2-methoxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



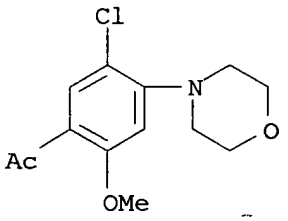

IT **87203-04-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and methylation of)

RN 87203-04-1 CAPLUS

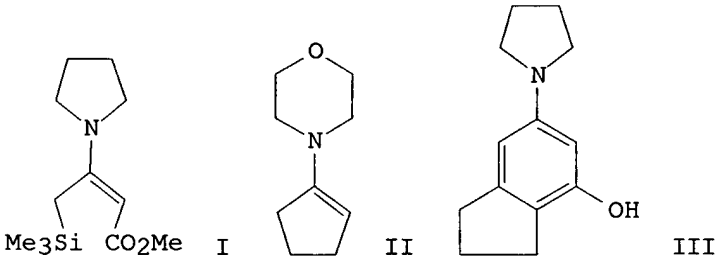
CN Ethanone, 1-[5-chloro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



IT **87203-06-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with sulfur and morpholine)
RN 87203-06-3 CAPLUS
CN Ethanone, 1-[5-chloro-2-methoxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



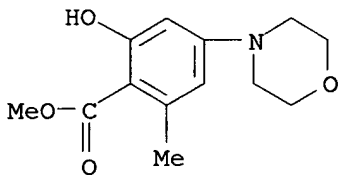
L4 ANSWER 24 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:575286 CAPLUS
DOCUMENT NUMBER: 99:175286
TITLE: Cycloaromatization reaction of enamines
AUTHOR(S): Chan, T. H.; Kang, G. J.
CORPORATE SOURCE: Dep. Chem., McGill Univ., Montreal, QC, H3A 2K6, Can.
SOURCE: Tetrahedron Letters (1983), 24(30), 3051-4
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 99:175286
GI



AB Condensation of enamines with 4-(trimethylsilyl)-3-(dialkylamino)crotonate esters under acid catalyzed conditions gives arom. compds. according to a

3C+3C or a 4C+2C manner depending on the structure of the enamine. Thus, the aminocrotonate I reacted with the enamine II to give the phenol deriv. III in 64% yield.

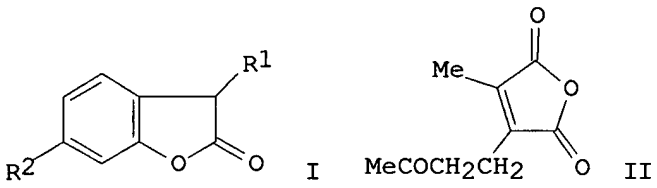
IT **87565-78-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 87565-78-4 CAPLUS
CN Benzoic acid, 2-hydroxy-6-methyl-4-(4-morpholinyl)-, methyl ester (9CI) (CA INDEX NAME)




L4 ANSWER 25 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:539751 CAPLUS
DOCUMENT NUMBER: 99:139751
TITLE: Furans
INVENTOR(S): Wenk, Paul; Breitenstein, Werner; Baumann, Marcus
PATENT ASSIGNEE(S): Ciba-Geigy A.-G. , Switz.
SOURCE: Eur. Pat. Appl., 103 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| EP 78241 | A2 | 19830504 | EP 1982-810439 | 19821022 |
| EP 78241 | A3 | 19840328 | | |
| R: AT, BE, CH, DE, FR, IT, LI, LU, NL, SE | | | | |
| US 4426380 | A | 19840117 | US 1982-435595 | 19821021 |
| FI 8203640 | A | 19830429 | FI 1982-3640 | 19821025 |
| GB 2110210 | A1 | 19830615 | GB 1982-30351 | 19821025 |
| GB 2110210 | B2 | 19850703 | | |
| ES 516842 | A1 | 19840116 | ES 1982-516842 | 19821026 |
| CA 1199635 | A1 | 19860121 | CA 1982-414197 | 19821026 |
| DK 8204759 | A | 19830429 | DK 1982-4759 | 19821027 |
| NO 8203585 | A | 19830429 | NO 1982-3585 | 19821027 |
| AU 8289823 | A1 | 19830505 | AU 1982-89823 | 19821027 |
| ZA 8207844 | A | 19830629 | ZA 1982-7844 | 19821027 |
| DD 204699 | A5 | 19831207 | DD 1982-244314 | 19821027 |
| HU 29609 | O | 19840228 | HU 1982-3447 | 19821027 |
| JP 58126882 | A2 | 19830728 | JP 1982-191737 | 19821028 |
| US 4451462 | A | 19840529 | US 1983-542334 | 19831017 |
| ES 526890 | A1 | 19851001 | ES 1983-526890 | 19831028 |
| ES 526892 | A1 | 19851001 | ES 1983-526892 | 19831028 |
| ES 526891 | A1 | 19860201 | ES 1983-526891 | 19831028 |
| PRIORITY APPLN. INFO.: | | | CH 1981-6882 | 19811028 |
| | | | US 1982-435595 | 19821021 |

GI

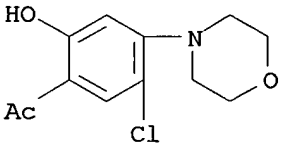


AB Benzofuranones I (R1 = H, aliph. group; R2 = amino disubstituted with hydrocarbondiyl; benzo ring may be addnl. substituted) and their salts and(or) isomers, useful as inflammation inhibitors, analgesics, and sunscreens for skin (no data), were prepd. Imidazo[1,2-a]pyridin-2(3H)-one hydrochloride in aq. NaOH added to maleic acid to give 3-(1,2-dicarboxyethyl)imidazo[1,2-a]pyridin-2-(3H)-one. The HCl salt of this added to MeCOCH:CH2 and the product was decarboxylated and hydrolyzed to give maleic anhydride II. This reacted with morpholinium benzoate in refluxing C6H6 in 48 h with H2O sepn. to give I (R1 = Me, R2 = morpholino).

IT **87203-04-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and etherification of)

RN 87203-04-1 CAPLUS

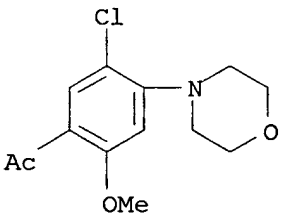
CN Ethanone, 1-[5-chloro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



IT **87203-06-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and thioamidation or redn. of)

RN 87203-06-3 CAPLUS

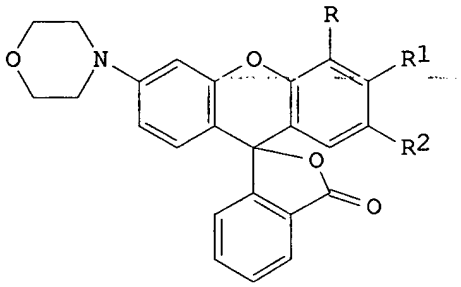
CN Ethanone, 1-[5-chloro-2-methoxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 26 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:73839 CAPLUS
DOCUMENT NUMBER: 98:73839
TITLE: Chromogenic fluoran compounds
INVENTOR(S): Dixon, Leonard Fox
PATENT ASSIGNEE(S): Holliday Dyes and Chemicals Ltd., UK
SOURCE: Brit. UK Pat. Appl., 6 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| GB 2097013 | A | 19821027 | GB 1982-10955 | 19820415 |
| PRIORITY APPLN. INFO.: | | | GB 1981-12191 | 19810416 |

GI



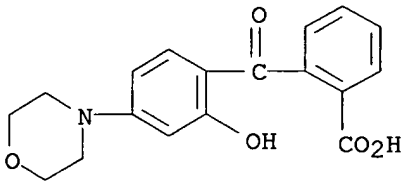
I

AB Chromogenic fluorans (I) for pressure-sensitive record materials are prepd., where R = H or lower alkyl; R1 and R2 independently represent H, alkyl, cycloalkyl, aralkyl, aryl, OH, alkoxy, cycloalkoxy, aralkoxy, or aryloxy; R1 or R2 can be an optionally substituted amino group; and RR1 or R1R2 represents a fused ring. In contact with acidic materials I give red, orange, green, purple, and black colors. Thus, reaction of 2'-hydroxy-4'-morpholinobenzophenone-2-carboxylic acid [**55165-07-6**] with 4-(acetylamino)phenol [103-90-2] in H2SO4 at 50.degree. followed by deacetylation gave almost colorless cryst. I(R = R1 = H, R2 = NH2)(II) [84428-98-8] (after recrystn. from toluene). A toluene soln. of II gave a purple black color to acid clay-coated paper. Ten other I were similarly prepd.

IT **55165-07-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation reaction of, with aminophenols)

RN 55165-07-6 CAPLUS

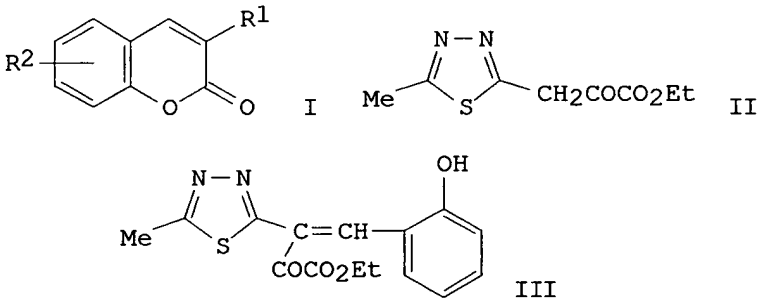
CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 27 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1981:587261 CAPLUS
DOCUMENT NUMBER: 95:187261
TITLE: Coumarin compounds
INVENTOR(S): Hagen, Helmut; Kohler, Rolf Dieter
PATENT ASSIGNEE(S): BASF A.-G. , Fed. Rep. Ger.
SOURCE: Ger. Offen., 17 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 2950291 | A1 | 19810619 | DE 1979-2950291 | 19791214 |
| EP 30703 | A1 | 19810624 | EP 1980-107746 | 19801209 |
| EP 30703 | B1 | 19840321 | | |
| R: BE, CH, DE, FR, GB, NL | | | | |

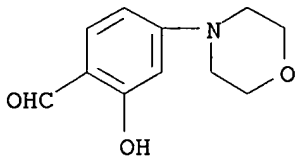
PRIORITY APPLN. INFO.: DE 1979-2950291 19791214
GI



AB Coumarins I(R1 = heterocyclyl, R2 = H, aliph., cyclo-, araliph., arom., OR3, NR32, NO2, halo, R3 independently = aliph., cyclo-8 araliph., arom., NR32 = heterocyclyl) were prepd. by a simpler and more economical method than previously and in better yield and purity. I was fluorescent dyes and optical brighteners (no data) and intermediates for dyes, pesticides, and pharmaceuticals. Stirring a mixt. of pyruvate II, 2-HOC6H4CHO, and ZnCl2 2 h at 100.degree. gave 60% condensation product III which was cyclized with NaOMe in Me glycol in 1 h at 130.degree. to give 85% coumarin I (R1 = 5-methyl-1,3,4-thiadiazol-2-yl, R2 = H).

IT **70362-07-1**
RL: RCT (Reactant); RACT (Reactant or reagent)

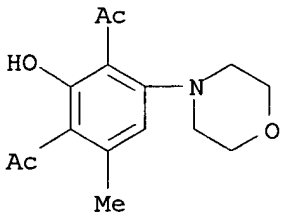
(cyclization of, with thiadiazolylpyruvate ester enolate)
RN 70362-07-1 CAPLUS
CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



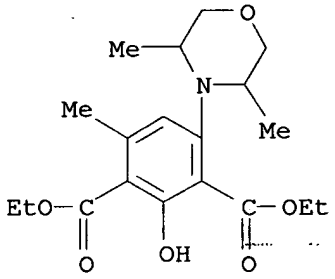

L4 ANSWER 28 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1981:568872 CAPLUS
DOCUMENT NUMBER: 95:168872
TITLE: Benzene derivatives from 4-pyrones: the reaction of 3,5-diacetyl- and 3,5-bisethoxycarbonyl-4-pyrones with secondary amines
AUTHOR(S): Eiden, Fritz; Teupe, Ernst Guenther; Leister, Hans Peter
CORPORATE SOURCE: Inst. Pharm. Lebensmittelchem., Univ. Muenchen, Munich, 8000/2, Fed. Rep. Ger.
SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1981), 314(4), 347-55
CODEN: ARPMAS; ISSN: 0365-6233
DOCUMENT TYPE: Journal
LANGUAGE: German
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The reactions of title pyrones I (R = EtO, Me) with cyclic R12NH (e.g., piperidine, morpholine) gave phenols II and, in the case of I (R = Me) with piperazine, bisphenol III. II (R = Me, NR12 = piperidino) and III reacted with Me2NCH(OCHMe2)2 to give IV and V. The reaction of IV with hydrazines gave pyrazoles VI (R2 = Ph, Me). Hydrolysis of II (R = Me, NR12 = 4-cyano-4-phenylpiperidino) gave VII (R3 = CONH2, CO2Et).
IT **77600-95-4P 79512-30-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 77600-95-4 CAPLUS
CN Ethanone, 1,1'-[2-hydroxy-4-methyl-6-(4-morpholinyl)-1,3-phenylene]bis- (9CI) (CA INDEX NAME)



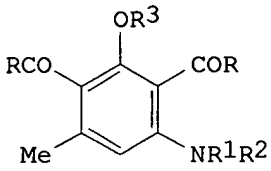
RN 79512-30-4 CAPLUS
CN 1,3-Benzenedicarboxylic acid, 4-(3,5-dimethyl-4-morpholinyl)-2-hydroxy-6-methyl-, diethyl ester (9CI) (CA INDEX NAME)



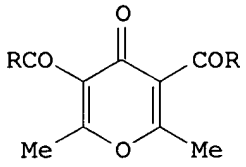
L4 ANSWER 29 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1981:191938 CAPLUS
DOCUMENT NUMBER: 94:191938
TITLE: 2-Hydroxy-4-methylbenzene compounds
INVENTOR(S): Eiden, Fritz; Teupe, Ernst Guenther; Leister, Hans Peter; Mayer, Dieter
PATENT ASSIGNEE(S): Thiemann, Dr., G.m.b.H. Chem.-Pharm. Fabrik, Fed. Rep. Ger.
SOURCE: Ger. Offen., 12 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 2922488 | A1 | 19801211 | DE 1979-2922488 | 19790601 |

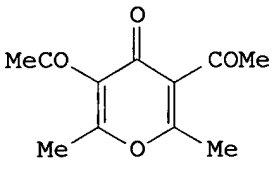
GI



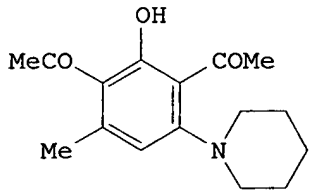

I




II




III



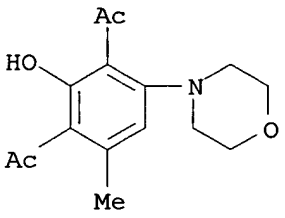

IV

AB I [R = Me or C1-4 alkoxy; R1 and R2 were C1-4 alkyl or (R1R2N =) heterocyclyl; R3 = H, Me, or Et] were prepd. by reaction of II with secondary amines. Thus 2 g III and 950 mg piperidine were heated 1.5 h at 100.degree. to give 84% IV.

IT **77600-95-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 77600-95-4 CAPLUS

CN Ethanone, 1,1'-[2-hydroxy-4-methyl-6-(4-morpholinyl)-1,3-phenylene]bis- (9CI) (CA INDEX NAME)




L4 ANSWER 30 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1980:595485 CAPLUS
DOCUMENT NUMBER: 93:195485
TITLE: Pressure-sensitive copying paper
INVENTOR(S): Miyazawa, Yoshiei; Motohashi, Katsuichi; Harada, Etsuo; Kato, Hajime
PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd., Japan; Fuji Photo Film Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|

JP 55044830 A2 19800329 JP 1978-117983 19780927

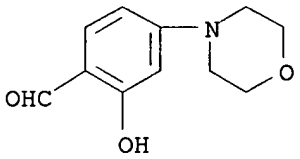
GI For diagram(s), see printed CA Issue.

AB Pressure-sensitive copying materials contain a 7-substituted spiropyran deriv. I (R = H, lower alkyl, Ph; A = benzene or naphthalene ring; R1 = pyrrolidinyl, piperidino, morpholino; R may form 5- or 6-membered ring by bonding with the C atom at 3-position) as the dye precursor. Thus, II was microencapsulated by using a conventional method and the resultant microcapsule dispersion was coated on a paper support to give a pressure-sensitive sheet which gave high-optical-d. images having good light fastness when it is used with an acidic clay type color developer sheet.

IT **70362-07-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dimethylnaphthopyrylium chloride ferric chloride)

RN 70362-07-1 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)




L4 ANSWER 31 OF 37 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1979:213274 CAPLUS

DOCUMENT NUMBER: 90:213274

TITLE: Leuco dyes for pressure-sensitive copying paper

INVENTOR(S): Baumann, Hans; Oberlinner, Andreas

PATENT ASSIGNEE(S): BASF A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 22 pp.
CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

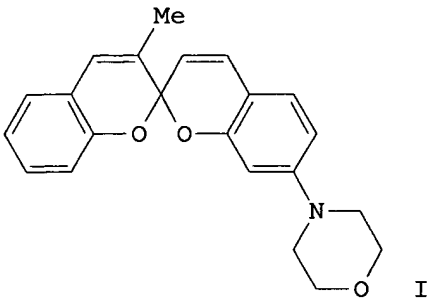
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 2737207 | A1 | 19790301 | DE 1977-2737207 | 19770818 |
| US 4161589 | A | 19790717 | US 1978-932015 | 19780808 |
| EP 900 | A1 | 19790307 | EP 1978-100629 | 19780809 |
| EP 900 | B1 | 19810114 | | |
| R: CH, DE, FR, GB | | | | |
| JP 54041880 | A2 | 19790403 | JP 1978-100125 | 19780818 |

PRIORITY APPLN. INFO.: DE 1977-2737207 19770818

GI



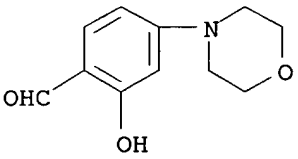
I

AB Spirodipyrans with a fused-on Ph or 2,1-naphthalene ring and N-morpholino (or N-isoindolinyl) as substituent, microencapsulated as practically colorless oily soln., and coated on paper yield red-violet to blue copies in contact with electron acceptors but are less liable to develop color in non-acid areas than precursors contg. a -NEt2 group in place of the morpholine. Thus, refluxing 2,3-dimethylbenzopyrylium trichlorozincate 165 parts with 4-N-morpholinosalicylaldehyde 105 parts in MeOH 900 parts resulted in a cryst. dye which was decolorized by stirring in a mixt. of 25% aq. NH4OH 500 and PhMe 1000 parts. From the PhMe phase 3'-methyl-7-N-morpholino-2,2'-spirodi(2H-1-benzopyran) (I) 130 parts was recovered.

IT **70362-07-1**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dimethylbenzopyryliumtrichlorozincate and related compds.)

RN 70362-07-1 CAPLUS

CN Benzaldehyde, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 32 OF 37 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1978:22305 CAPLUS

DOCUMENT NUMBER: 88:22305

TITLE: Amide-acid chloride adducts. Part IX. The reaction of .beta.-N,N-dialkylammocrotonates with phosphorus oxychloride

AUTHOR(S): Harris, Roger L. N.; Huppatz, John L.; Phillips, John N.

CORPORATE SOURCE: Div. Plant Ind., CSIRO, Canberra City, Australia

SOURCE: Australian Journal of Chemistry (1977), 30(10), 2213-23
CODEN: AJCHAS; ISSN: 0004-9425

DOCUMENT TYPE: Journal

LANGUAGE: English

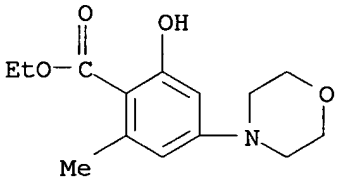
AB .beta.-(Dialkylamino)crotonates underwent autocondensation in excess phosphorus oxychloride at room temp. to give N,N-dialkylanthranilates in

high yield. When stoichiometric amts. of phosphorus oxychloride were used in benzene at 80.degree., significant amts. of phenolic by-products were also formed, which, in the case of .beta.-morpholinocrotonates, become the major products.

IT **65219-95-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 65219-95-6 CAPLUS

CN Benzoic acid, 2-hydroxy-6-methyl-4-(4-morpholinyl)-, ethyl ester (9CI) (CA INDEX NAME)



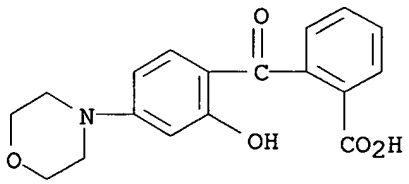

L4 ANSWER 33 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1976:91647 CAPLUS
DOCUMENT NUMBER: 84:91647
TITLE: Fluoran derivatives
INVENTOR(S): Yahagi, Masakichi; Toyama, Takafumi; Izaki, Tetsuo; Suzuki, Teruo
PATENT ASSIGNEE(S): Nisso Kako Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp. Division of Japan. Kokai 75 09,430.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 50082127 | A2 | 19750703 | JP 1974-95363 | 19740820 |
| JP 55049086 | B4 | 19801210 | | |

GI For diagram(s), see printed CA Issue.

AB Fluoran derivs. I (R = pyrrolidino, piperidino, or morpholino; R1-R4 include at least 1 amino substituent) are prepd. by reaction of 2,4-HORC6H3COC6H4CO2H-2 (II) with an aminophenol or aminonaphthol. I are useful as color-formers in inks for pressure- or heat-sensitive copying paper. For example, 8 g II (R = piperidino) [55165-06-5] was treated with 5.4 g 4,2-HOMeC6H3NHPh [17654-13-6] in 62 g concd. H2SO4 at 0-10.degree. for 24 hr, poured into ice water and filtered to give 6.2 g I (R = piperidino, R1 = R4 = H, R2 = Me, R3 = NHPh) [55773-64-3] as pale brown crystals, which turn violet in contact with clay and green in contact with phenolic resins. Four addnl. I were similarly prepd. Also, 9.7 g p-H2NC6H4OH [123-30-8] was added to 23 g II (R = pyrrolidino) [49742-68-9] in 90 g concd. H2SO4 at 100-10.degree. and the product [55772-74-2] was alkylated with PhCH2Cl [100-44-7] in xylene at 120-30.degree. to give 5.0 g white I [R = pyrrolidino, R1 = R2 = R4 = H, R3 = N(CH2Ph)2] [55772-83-3], which turned green in contact with clay or phenolic resin. Similar alkylation gave 4 addnl. I.

IT **55165-07-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with piperidinophenol)
RN 55165-07-6 CAPLUS
CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



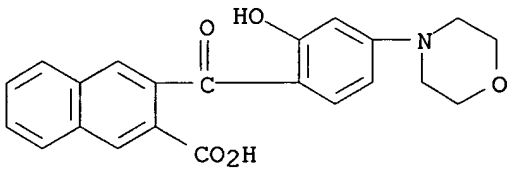
L4 ANSWER 34 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1975:499215 CAPLUS
DOCUMENT NUMBER: 83:99215
TITLE: Fluoran compounds and recording material containing them
INVENTOR(S): Hotta, Seiji; Ito, Yukiaki
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Ger. Offen., 90 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 2446313 | A1 | 19750515 | DE 1974-2446313 | 19740927 |
| JP 50064016 | A2 | 19750530 | JP 1973-112591 | 19731005 |
| JP 56046997 | B4 | 19811106 | | |
| US 4024157 | A | 19770517 | US 1974-510916 | 19741001 |
| GB 1460210 | A | 19761231 | GB 1974-42900 | 19741003 |
| FR 2246561 | A1 | 19750502 | FR 1974-33567 | 19741004 |
| CH 613403 | A | 19790928 | CH 1974-13400 | 19741004 |
| US 4156682 | A | 19790529 | US 1976-734668 | 19761021 |

PRIORITY APPLN. INFO.: JP 1973-112591 19731005
US 1974-510916 19741001

GI For diagram(s), see printed CA Issue.
AB Color formers [I, R = H, Br; R1 = Et, Me; R2 = Et, Ph, cyclohexyl, p-MeC6H4; (R1R2N) = morpholino, piperidino; R3 = H; (R3R4) = benzo; R4 = H, Me; R5 = H, Ph, PhCH2, Me, cyclohexyl, substituted Ph; R6 = H, Ph, PhCH2] were prepd. and used in pressure-sensitive copying paper giving light-fast dark red to black shades in contact with an acid substrate. Thus, a mixt. of 4-HOC6H4NH2 [123-30-8], 2-[4-(diethylamino)-2-hydroxybenzoyl]-3-naphthalenecarboxylic acid [54117-20-3] in H2SO4 was condensed at 20-30.degree. for 10 hr, the reaction mixt. contg. the anilide deriv. poured into ice water, and neutralized with NaOH to give color former I(R = R3 = R4 = R5 = R6 = H, R1 = R2 = Et) [54117-21-4], dark brown in contact with an acid substrate.
IT **56279-07-3**
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with toluidinophenol)
RN 56279-07-3 CAPLUS
CN 2-Naphthalenecarboxylic acid, 3-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 35 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1975:461717 CAPLUS
DOCUMENT NUMBER: 83:61717
TITLE: Fluoran derivatives
INVENTOR(S): Yahagi, Masakichi; Horiuchi, Shoichi; Toyama, Takahuma; Kashiwagi, Akio
PATENT ASSIGNEE(S): Shin Nisso Kako Co., Ltd.
SOURCE: Ger. Offen., 86 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 2424935 | A1 | 19741219 | DE 1974-2424935 | 19740522 |
| DE 2424935 | C2 | 19880225 | | |
| JP 50009430 | A2 | 19750130 | JP 1973-56278 | 19730522 |
| JP 51038245 | B4 | 19761020 | | |
| JP 50042913 | A2 | 19750418 | JP 1973-93260 | 19730822 |
| JP 51038246 | B4 | 19761020 | | |
| JP 50120636 | A2 | 19750922 | JP 1974-26876 | 19740308 |
| JP 54026929 | B4 | 19790906 | | |
| FR 2230632 | A1 | 19741220 | FR 1974-17660 | 19740521 |
| FR 2230632 | B1 | 19790720 | | |
| US 3959571 | A | 19760525 | US 1974-472204 | 19740521 |
| IT 1011848 | A | 19770210 | IT 1974-68598 | 19740521 |
| GB 1478596 | A | 19770706 | GB 1974-22914 | 19740522 |
| US 4410708 | A | 19831018 | US 1976-654732 | 19760203 |
| US 4677203 | A | 19870630 | US 1983-504272 | 19830614 |

PRIORITY APPLN. INFO.:
JP 1973-56278 19730522
JP 1973-93260 19730822
JP 1974-26876 19740308
US 1974-472204 19740521
US 1976-654732 19760203

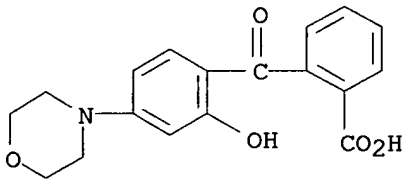
GI For diagram(s), see printed CA Issue.
AB Fluoran derivs. contg. piperidino, pyrrolidino, cyclhexylamino, and morpholino residues in the 3-position were prepd. which were less selfdeveloping than corresponding 3-Et2N derivs. and were used as color formers for heat-and pressure-sensitive copying paper. Thus, a mixt. of 2-(2-hydroxy-4-piperidinobenzoyl)benzoic acid [55165-06-5] and

PhNHC6H3(OH)Me-4,2 [17654-13-6] in H2SO4 was held at 0-10.degree. for 24 hr to give fluoran deriv. (I) [55773-64-3]. Similarly, 98 other fluoran derivs. were prepd. and their color on acid substrates were given.

IT **55165-07-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with piperidinophenol)

RN 55165-07-6 CAPLUS

CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 36 OF 37 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1975:155802 CAPLUS

DOCUMENT NUMBER: 82:155802

TITLE: Benzophenone derivatives

INVENTOR(S): Yahagi, Masakichi; Toyama, Takafumi; Igaki, Tetsuo

PATENT ASSIGNEE(S): Nisso Chemical Industries, Ltd.

SOURCE: Japan. Kokai, 6 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 49133367 | A2 | 19741221 | JP 1973-47349 | 19730428 |
| JP 52010871 | B4 | 19770326 | | |

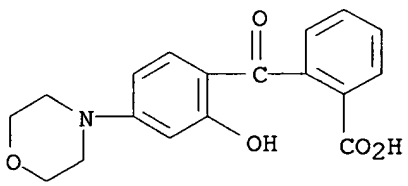
GI For diagram(s), see printed CA Issue.

AB Benzophenone derivs. (I; R = piperidino, pyrrolidino, morpholino) were prepd. by reacting m-RC6H4OH with phthalic anhydride (II). Thus, a mixt. of 18 g m-pyrrolidinophenol and 15 g II in PhMe was stirred 4 hr at 110.degree. to give 21 g I (R = pyrrolidino).

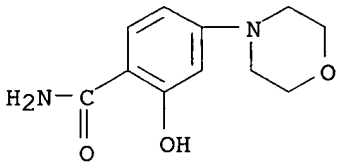
IT **55165-07-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 55165-07-6 CAPLUS

CN Benzoic acid, 2-[2-hydroxy-4-(4-morpholinyl)benzoyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 37 OF 37 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1972:461917 CAPLUS
DOCUMENT NUMBER: 77:61917
TITLE: Aminobenzenes. VIII. Rearrangement of phenyl carbamates. Syntheses of 2,4-dioxo-3,4-dihydro-2H-1,3-benzoxazines and salicylamides
AUTHOR(S): Effenberger, Franz; Niess, Rolf; Schick, Max
CORPORATE SOURCE: Inst. Org. Chem., Univ. Stuttgart, Stuttgart, Ger.
SOURCE: Chem. Ber. (1972), 105(6), 1926-42
CODEN: CHBEAM
DOCUMENT TYPE: Journal
LANGUAGE: German
GI For diagram(s), see printed CA Issue.
AB Thermal rearrangement of N-aryl-substituted m-RC6H4O2CNHR1 (I, R = pyrrolidinyl, piperidino, or Me2N; R1 = Ph, Bz, or p-ClC6H4CO) obtained from m-RC6H4OH and R1NCO gave 4,2-R(HO)C6H3-CONHR1 (II), whereas N-alkoxy-substituted I gave 2,4-dioxo-3,4-dihydro-2H-1,3-benzoxazines (III). III were cleaved by dil. KOH with CO2 evolution to give II (R1 = H). The mechanism of this Fries rearrangement-like reaction involving an intramol. path is discussed.
IT **37893-38-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 37893-38-2 CAPLUS
CN Benzamide, 2-hydroxy-4-(4-morpholinyl)- (9CI) (CA INDEX NAME)

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| FULL ESTIMATED COST | 162.79 | 303.28 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
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| CA SUBSCRIBER PRICE | -22.92 | -22.92 |

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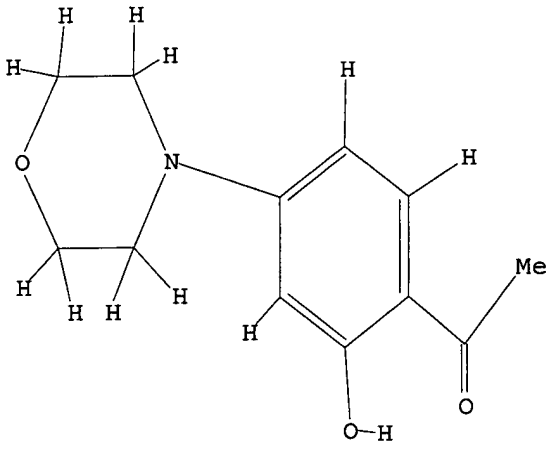

Structure attributes must be viewed using STN Express query preparation.

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100.0% PROCESSED 367 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

L2 1 SEA SSS FUL L1

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FULL ESTIMATED COST 140.28 140.49

FILE 'CAPLUS' ENTERED AT 13:22:30 ON 16 DEC 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.


FILE COVERS 1907 - 16 Dec 2002 VOL 137 ISS 25
FILE LAST UPDATED: 15 Dec 2002 (20021215/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please

check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

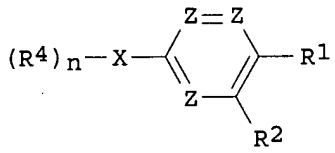
=> s l2
L3 1 L2

=> d ibib abs hitstr tot

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:185097 CAPLUS
DOCUMENT NUMBER: 136:247591
TITLE: Preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase and methods to potentiate cancer treatment
INVENTOR(S): Halbrook, James; Kesicki, Edward; Burgess, Laurence E.; Schlachter, Stephen T.; Eary, Charles T.; Schiro, Justin G.; Huang, Hongmei; Evans, Michael; Han, Yongxin
PATENT ASSIGNEE(S): Icos Corporation, USA
SOURCE: PCT Int. Appl., 247 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2002020500 | A2 | 20020314 | WO 2001-US26709 | 20010828 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2001088432 | A5 | 20020322 | AU 2001-88432 | 20010828 |
| US 2002165218 | A1 | 20021107 | US 2001-941897 | 20010828 |

PRIORITY APPLN. INFO.: US 2000-229899P P 20000901
WO 2001-US26709 W 20010828
OTHER SOURCE(S): MARPAT 136:247591
GI



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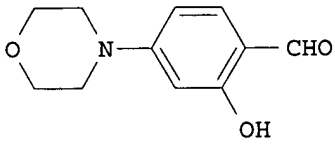


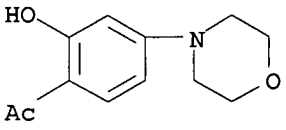
II

AB Compds. that inhibit DNA-dependent protein kinase, I [n = 0-4; X = (un)substituted 4-7 membered aliph. ring contg. 0-3 heteroatoms consisting of N, O and S (X = morpholinyl preferred); Z = independently N or CR3; R3 = independently H, halo, CHO, alkoxy, etc.; R1 = H, (un)substituted alkyl, cycloalkyl, CO, NO2, etc.; R2 = H, (un)substituted alkyl, carbamoyl, alkoxy, sulfamyl, etc.; with provision when X = morpholinyl, R2 and R4 and R3 = H at each occurrence, then R1 is different from COMe, phenylalkene, and NO2; and with the provision that when X = morpholinyl, R4 = H and Z = N at each occurrence, then R1 and R2 when taken together is different from triazole], were prepd. and compns. of I with other antineoplastic agents are claimed for use in cancer treatment therapy. Thus, II was prepd. in 23% yield via formylation of 3-(4-morpholinyl)phenol. II demonstrated an IC50 value of 400 nM in DNA-PK assay. Preliminary results of animal tumor model studies indicate II enhanced the tumoristatic effect of total body irradn. (using 100-500 rad .gamma.-radiation, II delayed tumor growth 1.2 to 1.8-fold relative to animals receiving radiation only).

IT **404009-40-1P**
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(target compd.; prepn. of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

RN 404009-40-1 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



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|---|---|---|
| FULL ESTIMATED COST | 4.79 | 145.28 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
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| | ENTRY | SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | -0.62 | -0.62 |

STN INTERNATIONAL LOGOFF AT 13:22:49 ON 16 DEC 2002

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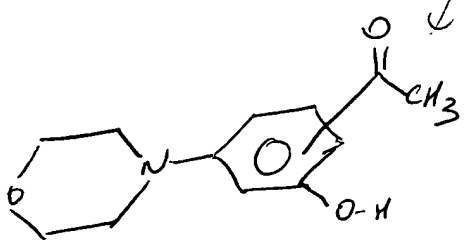

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BATCH **COMPLETE**
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SEARCH TIME: 00.00.01

L3 11 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 140.28 140.49

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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.


FILE COVERS 1907 - 16 Dec 2002 VOL 137 ISS 25
FILE LAST UPDATED: 15 Dec 2002 (20021215/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> s l3
L4 6 L3

=> d ibib abs hitstr tot

L4 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:185097 CAPLUS
DOCUMENT NUMBER: 136:247591
TITLE: Preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase and methods to potentiate cancer treatment
INVENTOR(S): Halbrook, James; Kesicki, Edward; Burgess, Laurence E.; Schlachter, Stephen T.; Eary, Charles T.; Schiro, Justin G.; Huang, Hongmei; Evans, Michael; Han, Yongxin
PATENT ASSIGNEE(S): Icos Corporation, USA
SOURCE: PCT Int. Appl., 247 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2002020500 | A2 | 20020314 | WO 2001-US26709 | 20010828 |
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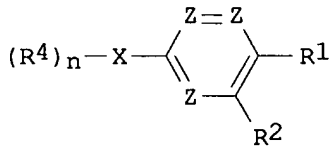
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2001088432 | A5 | 20020322 | AU 2001-88432 | 20010828 |
| US 2002165218 | A1 | 20021107 | US 2001-941897 | 20010828 |

PRIORITY APPLN. INFO.: US 2000-229899P P 20000901
WO 2001-US26709 W 20010828
OTHER SOURCE(S): MARPAT 136:247591
GI



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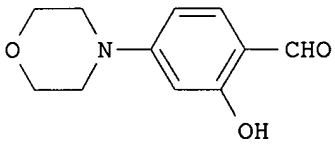


II

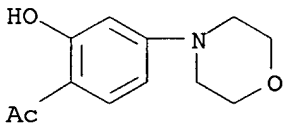
AB Compds. that inhibit DNA-dependent protein kinase, I [n = 0-4; X = (un)substituted 4-7 membered aliph. ring contg. 0-3 heteroatoms consisting



own work

of N, O and S (X = morpholinyl preferred); Z = independently N or CR3; R3 = independently H, halo, CHO, alkoxy, etc.; R1 = H, (un)substituted alkyl, cycloalkyl, CO, NO2, etc.; R2 = H, (un)substituted alkyl, carbamoyl, alkoxy, sulfamyl, etc.; with provision when X = morpholinyl, R2 and R4 and R3 = H at each occurrence, then R1 is different from COMe, phenylalkene, and NO2; and with the provision that when X = morpholinyl, R4 = H and Z = N at each occurrence, then R1 and R2 when taken together is different from triazole], were prepd. and compns. of I with other antineoplastic agents are claimed for use in cancer treatment therapy. Thus, II was prepd. in 23% yield via formylation of 3-(4-morpholinyl)phenol. II demonstrated an IC50 value of 400 nM in DNA-PK assay. Preliminary results of animal tumor model studies indicate II enhanced the tumoristatic effect of total body irradn. (using 100-500 rad .gamma.-radiation, II delayed tumor growth 1.2 to 1.8-fold relative to animals receiving radiation only).

IT **404009-40-1P**
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(target compd.; prepn. of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)
RN 404009-40-1 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)




IT **404011-08-1P**
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(target compd.; prepn. of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)
RN 404011-08-1 CAPLUS
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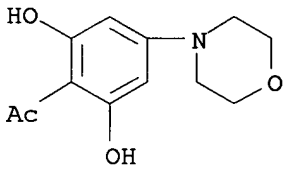


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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(target compd.; prepn. of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

RN 404009-52-5 CAPLUS
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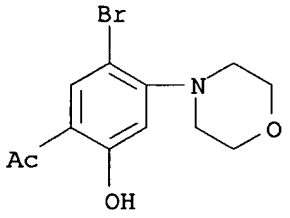


RN 404009-54-7 CAPLUS
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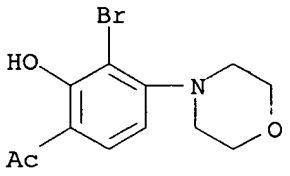


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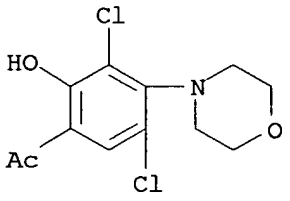


RN 404009-58-1 CAPLUS
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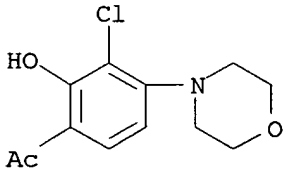
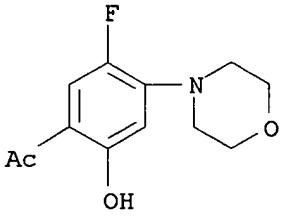
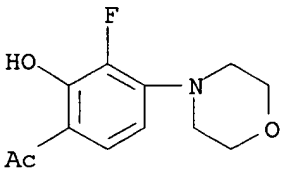



RN 404009-60-5 CAPLUS
CN Ethanone, 1-[5-fluoro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX

NAME)




RN 404009-62-7 CAPLUS
CN Ethanone, 1-[3-fluoro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



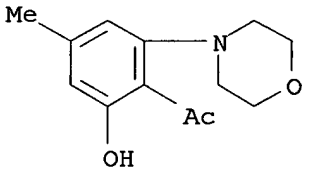

L4 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:422242 CAPLUS
DOCUMENT NUMBER: 103:22242
TITLE: Pyran derivatives. 107. Preparation and reactions of 2-acetyl-3-amino-5-hydroxy-2-cyclohexenones; benzene derivatives from pyrones
AUTHOR(S): Eiden, Fritz; Patzelt, Gertrud
CORPORATE SOURCE: Inst. Pharm. Lebensmittelchem., Univ. Muenchen, Munich, 8000/2, Fed. Rep. Ger.
SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1985), 318(4), 328-40
CODEN: ARPMAS; ISSN: 0365-6233
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 103:22242
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Acetylpyrene I reacted with HNR22 [NR22 = NMe2, NEt2, NMeCH2CH2Ph, piperidino, morpholino, perhydroazepine, 4-(2-pyridyl)-1-piperazinyl, 4-methyl-1-piperazinyl, 4-[3-(trifluoromethyl)phenyl]-1-piperazinyl, 1-piperazinyl] gave aminocyclohexenones II and III and aminophenols IV. NH3 and 1,2-C6H4(NH2)2 gave pyridinones V (R = H, 2-H2NC6H4) or VI. The amine group in II (R2 = Me) (VII) was replaced by reaction with NH3, amines, amino acids, and hydrazine derivs. VII cyclized with PhC(:NH)NH2 or H2NNHR1 (R1 = Ph, Me) to give quinazoline VIII or indazoles IX.

Treating II, III, the transamination analogs of VII, VIII, or IX with KOH in EtOH gave the corresponding phenol dehydration products.

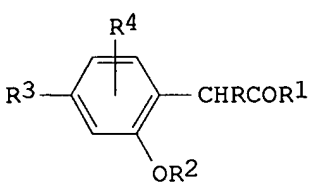
IT **97066-10-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 97066-10-9 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-methyl-6-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)




L4 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:575385 CAPLUS
DOCUMENT NUMBER: 99:175385
TITLE: Aminophenol acetic acid
INVENTOR(S): Wenk, Paul; Breitenstein, Werner; Baumann, Marcus
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
SOURCE: Brit. UK Pat. Appl., 45 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| GB 2109373 | A1 | 19830602 | GB 1982-30352 | 19821025 |
| GB 2109373 | B2 | 19860115 | | |
| EP 82109 | A2 | 19830622 | EP 1982-810440 | 19821022 |
| EP 82109 | A3 | 19850417 | | |
| R: AT, BE, CH, DE, FR, IT, LI, LU, NL, SE | | | | |
| FI 8203641 | A | 19830429 | FI 1982-3641 | 19821025 |
| ES 516843 | A1 | 19850516 | ES 1982-516843 | 19821026 |
| DK 8204760 | A | 19830429 | DK 1982-4760 | 19821027 |
| NO 8203586 | A | 19830429 | NO 1982-3586 | 19821027 |
| AU 8289824 | A1 | 19830505 | AU 1982-89824 | 19821027 |
| ZA 8207845 | A | 19830629 | ZA 1982-7845 | 19821027 |
| HU 30695 | O | 19840328 | HU 1982-3449 | 19821027 |
| JP 58150544 | A2 | 19830907 | JP 1982-191738 | 19821028 |
| DD 208798 | A5 | 19840411 | DD 1982-244347 | 19821028 |
| ES 529377 | A1 | 19851101 | ES 1984-529377 | 19840201 |
| ES 529378 | A1 | 19851101 | ES 1984-529378 | 19840201 |
| ES 529379 | A1 | 19851101 | ES 1984-529379 | 19840201 |
| ES 529380 | A1 | 19851201 | ES 1984-529380 | 19840201 |
| ES 529376 | A1 | 19860601 | ES 1984-529376 | 19840201 |
| ES 537285 | A1 | 19850816 | ES 1984-537285 | 19841031 |

PRIORITY APPLN. INFO.: CH 1981-6883 19811028
GI



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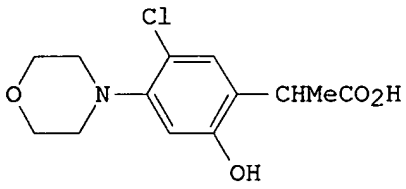


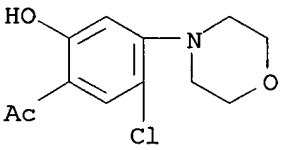
III

AB Phenylacetic acids I (R = H1, aliph.; R1 = OH, esterified OH, amino; R2 = H, acyl; R3 = amino; R4 = H, substituent) were prepd. as inflammation inhibitors, analgesics,and sunscreens (no data). Thus, treating imidazo[1,2-a]pyridin-2(3H)-one-HCl with maleic acid gave its 3-(1,2-diacarboxyethyl) deriv. which was treated with MeCOCH:CH2 and hydrolyzed to give 4-methyl-3-(3-oxobutyl)maleic anhydride (II). II was treated with morpholinium benzoate to give 3-methyl-6-morpholinobenzofuran-2(3H)-one which was converted to its 5-chloro deriv. and hydrolyzed to III.

IT **87203-04-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and methylation of)

RN 87203-04-1 CAPLUS

CN Ethanone, 1-[5-chloro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:539751 CAPLUS
DOCUMENT NUMBER: 99:139751
TITLE: Furans
INVENTOR(S): Wenk, Paul; Breitenstein, Werner; Baumann, Marcus
PATENT ASSIGNEE(S): Ciba-Geigy A.-G. , Switz.
SOURCE: Eur. Pat. Appl., 103 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| EP 78241 | A2 | 19830504 | EP 1982-810439 | 19821022 |
| EP 78241 | A3 | 19840328 | | |
| R: AT, BE, CH, DE, FR, IT, LI, LU, NL, SE | | | | |
| US 4426380 | A | 19840117 | US 1982-435595 | 19821021 |
| FI 8203640 | A | 19830429 | FI 1982-3640 | 19821025 |
| GB 2110210 | A1 | 19830615 | GB 1982-30351 | 19821025 |

| | | | | |
|---|---|---|---|---|
| GB 2110210 | B2 | 19850703 | | |
| ES 516842 | A1 | 19840116 | ES 1982-516842 | 19821026 |
| CA 1199635 | A1 | 19860121 | CA 1982-414197 | 19821026 |
| DK 8204759 | A | 19830429 | DK 1982-4759 | 19821027 |
| NO 8203585 | A | 19830429 | NO 1982-3585 | 19821027 |
| AU 8289823 | A1 | 19830505 | AU 1982-89823 | 19821027 |
| ZA 8207844 | A | 19830629 | ZA 1982-7844 | 19821027 |
| DD 204699 | A5 | 19831207 | DD 1982-244314 | 19821027 |
| HU 29609 | O | 19840228 | HU 1982-3447 | 19821027 |
| JP 58126882 | A2 | 19830728 | JP 1982-191737 | 19821028 |
| US 4451462 | A | 19840529 | US 1983-542334 | 19831017 |
| ES 526890 | A1 | 19851001 | ES 1983-526890 | 19831028 |
| ES 526892 | A1 | 19851001 | ES 1983-526892 | 19831028 |
| ES 526891 | A1 | 19860201 | ES 1983-526891 | 19831028 |

PRIORITY APPLN. INFO.: CH 1981-6882 19811028
US 1982-435595 19821021

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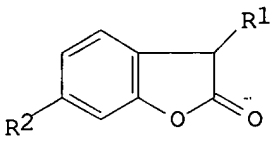


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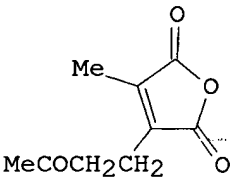


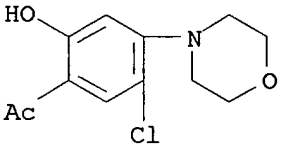

II

AB Benzofuranones I (R1 = H, aliph. group; R2 = amino disubstituted with hydrocarbondiyl; benzo ring may be addnl. substituted) and their salts and(or) isomers, useful as inflammation inhibitors, analgesics, and sunscreens for skin (no data), were prepd. Imidazo[1,2-a]pyridin-2(3H)-one hydrochloride in aq. NaOH added to maleic acid to give 3-(1,2-dicarboxyethyl)imidazo[1,2-a]pyridin-2-(3H)-one. The HCl salt of this added to MeCOCH:CH2 and the product was decarboxylated and hydrolyzed to give maleic anhydride II. This reacted with morpholinium benzoate in refluxing C6H6 in 48 h with H2O sepn. to give I (R1 = Me, R2 = morpholino).

IT **87203-04-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and etherification of)

RN 87203-04-1 CAPLUS

CN Ethanone, 1-[5-chloro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)




L4 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1981:568872 CAPLUS

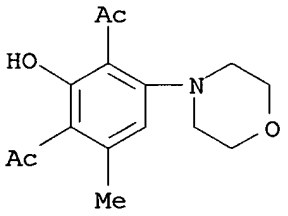
DOCUMENT NUMBER: 95:168872
TITLE: Benzene derivatives from 4-pyrones: the reaction of 3,5-diacetyl- and 3,5-bisethoxycarbonyl-4-pyrones with secondary amines
AUTHOR(S): Eiden, Fritz; Teupe, Ernst Guenther; Leister, Hans Peter
CORPORATE SOURCE: Inst. Pharm. Lebensmittelchem., Univ. Muenchen, Munich, 8000/2, Fed. Rep. Ger.
SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1981), 314(4), 347-55
CODEN: ARPMAS; ISSN: 0365-6233
DOCUMENT TYPE: Journal
LANGUAGE: German
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The reactions of title pyrones I (R = EtO, Me) with cyclic R12NH (e.g., piperidine, morpholine) gave phenols II and, in the case of I (R = Me) with piperazine, bisphenol III. II (R = Me, NR12 = piperidino) and III reacted with Me2NCH(OCHMe2)2 to give IV and V. The reaction of IV with hydrazines gave pyrazoles VI (R2 = Ph, Me). Hydrolysis of II (R = Me, NR12 = 4-cyano-4-phenylpiperidino) gave VII (R3 = CONH2, CO2Et).

IT **77600-95-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 77600-95-4 CAPLUS
CN Ethanone, 1,1'-[2-hydroxy-4-methyl-6-(4-morpholinyl)-1,3-phenylene]bis- (9CI) (CA INDEX NAME)

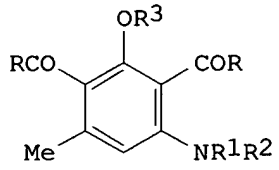



L4 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1981:191938 CAPLUS
DOCUMENT NUMBER: 94:191938
TITLE: 2-Hydroxy-4-methylbenzene compounds
INVENTOR(S): Eiden, Fritz; Teupe, Ernst Guenther; Leister, Hans Peter; Mayer, Dieter
PATENT ASSIGNEE(S): Thiemann, Dr., G.m.b.H. Chem.-Pharm. Fabrik, Fed. Rep. Ger.
SOURCE: Ger. Offen., 12 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 2922488 | A1 | 19801211 | DE 1979-2922488 | 19790601 |

GI



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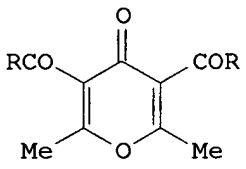
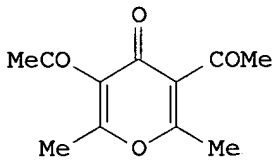
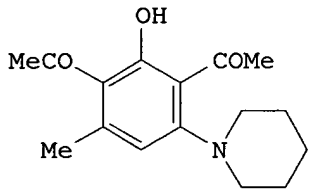


II



III



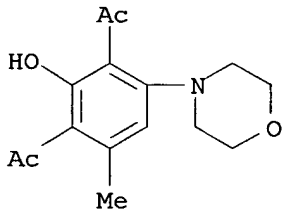
IV

AB I [R = Me or C1-4 alkoxy; R1 and R2 were C1-4 alkyl or (R1R2N =) heterocyclyl; R3 = H, Me, or Et] were prepd. by reaction of II with secondary amines. Thus 2 g III and 950 mg piperidine were heated 1.5 h at 100.degree. to give 84% IV.

IT **77600-95-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 77600-95-4 CAPLUS

CN Ethanone, 1,1'-[2-hydroxy-4-methyl-6-(4-morpholinyl)-1,3-phenylene]bis- (9CI) (CA INDEX NAME)

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| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 26.73 | 167.22 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|

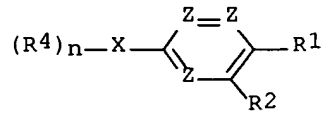
CA SUBSCRIBER PRICE -3.72 -3.72

STN INTERNATIONAL LOGOFF AT 13:04:16 ON 16 DEC 2002

L4 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2002 ACS
AN 2002:185097 CAPLUS
DN 136:247591
TI Preparation of arylmorpholines as inhibitors of DNA-dependent protein kinase and methods to potentiate cancer treatment
IN Halbrook, James; Kesicki, Edward; Burgess, Laurence E.; Schlachter, Stephen T.; Eary, Charles T.; Schiro, Justin G.; Huang, Hongmei; Evans, Michael; Han, Yongxin
PA Icos Corporation, USA
SO PCT Int. Appl., 247 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2002020500 | A2 | 20020314 | WO 2001-US26709 | 20010828 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2001088432 | A5 | 20020322 | AU 2001-88432 | 20010828 |
| | US 2002165218 | A1 | 20021107 | US 2001-941897 | 20010828 |
| PRAI | US 2000-229899P | P | 20000901 | | |
| | WO 2001-US26709 | W | 20010828 | | |

OS MARPAT 136:247591
GI



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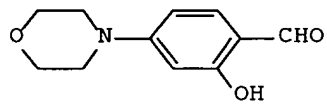


II

AB Compds. that inhibit DNA-dependent protein kinase, I [n = 0-4; X = (un)substituted 4-7 membered aliph. ring contg. 0-3 heteroatoms consisting of N, O and S (X = morpholinyl preferred); Z = independently N or CR3; R3 = independently H, halo, CHO, alkoxy, etc.; R1 = H, (un)substituted alkyl, cycloalkyl, CO, NO2, etc.; R2 = H, (un)substituted alkyl, carbamoyl, alkoxy, sulfamyl, etc.; with provision when X = morpholinyl, R2 and R4 and R3 = H at each occurrence, then R1 is different from COMe, phenylalkene, and NO2; and with the provision that when X = morpholinyl, R4 = H and Z = N at each occurrence, then R1 and R2 when taken together is different from triazole], were prepd. and compns. of I with other antineoplastic agents are claimed for use in cancer treatment therapy. Thus, II was prepd. in 23% yield via formylation of 3-(4-morpholinyl)phenol. II demonstrated an IC50 value of 400 nM in DNA-PK assay. Preliminary results of animal tumor

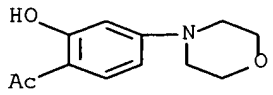
model studies indicate II enhanced the tumoristatic effect of total body irradn. (using 100-500 rad .gamma.-radiation, II delayed tumor growth 1.2 to 1.8-fold relative to animals receiving radiation only).

IT **404009-40-1P**

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (target compd.; prepn. of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

RN 404009-40-1 CAPLUS

CN Ethanone, 1-[2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)

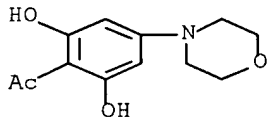



IT **404011-08-1P**

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (target compd.; prepn. of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

RN 404011-08-1 CAPLUS

CN Ethanone, 1-[2,6-dihydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)

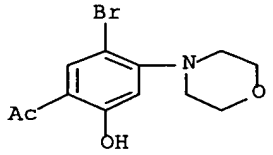



IT **404009-52-5P 404009-54-7P 404009-56-9P 404009-58-1P 404009-60-5P 404009-62-7P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)(target compd.; prepn. of arylmorpholines as inhibitors of DNA-dependent protein kinase for cancer treatment)

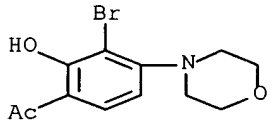
RN 404009-52-5 CAPLUS

CN Ethanone, 1-[5-bromo-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



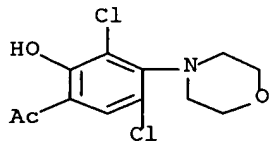

RN 404009-54-7 CAPLUS

CN Ethanone, 1-[3-bromo-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)

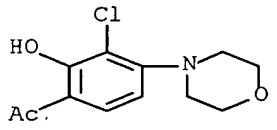



RN 404009-56-9 CAPLUS

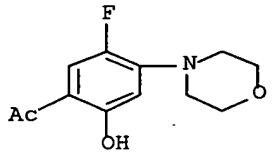
CN Ethanone, 1-[3,5-dichloro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



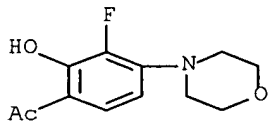
RN 404009-58-1 CAPLUS
CN Ethanone, 1-[3-chloro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



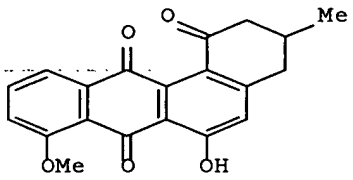
RN 404009-60-5 CAPLUS
CN Ethanone, 1-[5-fluoro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



RN 404009-62-7 CAPLUS
CN Ethanone, 1-[3-fluoro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2002 ACS
AN 2001:60509 CAPLUS
DN 134:178381
TI A general approach to angucyclines: synthesis of hatomarubigin A, rubiginone B2, antibiotic X-1488E, 6-hydroxytetrangulol, and tetrangulol
AU Parker, Kathlyn A.; Ding, Qing-Jie
CS Department of Chemistry, Brown University, Providence, RI, 02912, USA
SO Tetrahedron (2000), 56(52), 10249-10254
CODEN: TETRAB; ISSN: 0040-4020
PB Elsevier Science Ltd.
DT Journal
LA English
GI

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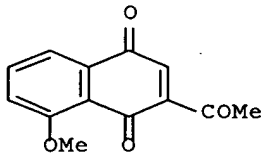
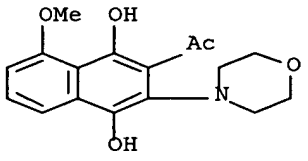



II

AB (.+-.)-Hatomarubigin A (I) was prepd. in 41% yield in a single procedure from acyl naphthoquinone II and 5-methylcyclohexane-1,3-dione. The net reaction consists of Michael addn. to an acyl quinone followed by intramol. aldol condensation. Hatomarubigin A (I) then served as a common intermediate in syntheses of the angucyclinone antibiotics (.+-.)-rubiginone B2, antibiotic X-1488E, 6-hydroxytetrangulol, and tetrangulol.

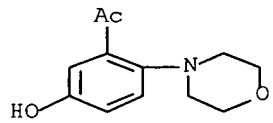
IT **326803-13-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of angucyclinones hatomarubigin A, rubiginone B2, antibiotic X-1488E, 6-hydroxytetrangulol, and tetrangulol)

RN 326803-13-8 CAPLUS
CN Ethanone, 1-[1,4-dihydroxy-8-methoxy-3-(4-morpholinyl)-2-naphthalenyl]-(9CI) (CA INDEX NAME)

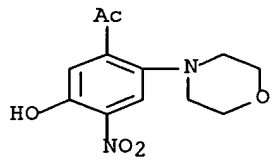



RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

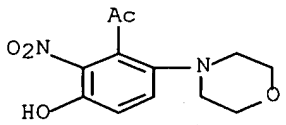
L4 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2002 ACS
AN 1997:335235 CAPLUS
DN 126:343344
TI Diels-Alder Reaction of 2-Amino-Substituted Furans as a Method for Preparing Substituted Anilines
AU Padwa, Albert; Dimitroff, Martin; Waterson, Alex G.; Wu, Tianhua
CS Department of Chemistry, Emory University, Atlanta, GA, 30322, USA
SO Journal of Organic Chemistry (1997), 62(12), 4088-4096
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 126:343344
AB 5-Amino-2-furancarboxylic acid Me ester undergoes a facile Diels-Alder cycloaddn. with a variety of dienophiles to afford ring-opened cycloadducts that are readily dehydrated using BF3.cntdot.OEt2 to give polysubstituted anilines. In each case, the cycloaddn. proceeds with high regioselectivity, with the electron-withdrawing group being located ortho to the amino group. The most favorable FMO interaction is between the HOMO of the furanamine and the LUMO of the dienophile. The at. coeff. at the ester carbon of the furan is larger than that at the amino center, and this nicely accommodates the obsd. regioselectivity. The [4 + 2]-cycloaddn. of N-(5-nitrofuranyl)morpholine with Me vinyl ketone affords a mixt. of three phenols. One of the phenols is derived from a Diels-Alder reaction followed by nitro group ejection and subsequent aromatization. The remaining two phenols are the result of cleavage of the initially formed oxabicyclic intermediate with concomitant migration of the nitro group. The mild reaction conditions with which furan-2-carbamic acid tert-Bu ester undergoes Diels-Alder cycloaddn. with N-phenylmaleimide allow for the ready isolation of the initial oxybridged cycloadduct.
IT **189746-76-7P 189746-77-8P 189746-80-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(Diels-Alder reaction of 2-aminofurans as method for prepg. anilines)
RN 189746-76-7 CAPLUS
CN Ethanone, 1-[5-hydroxy-2-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



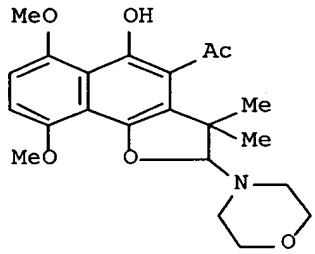

RN 189746-77-8 CAPLUS
CN Ethanone, 1-[5-hydroxy-2-(4-morpholinyl)-4-nitrophenyl]- (9CI) (CA INDEX NAME)




RN 189746-80-3 CAPLUS
CN Ethanone, 1-[3-hydroxy-6-(4-morpholinyl)-2-nitrophenyl]- (9CI) (CA INDEX NAME)


Ac
O2N
N
HO
O

L4 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2002 ACS
AN 1996:421865 CAPLUS
DN 125:167477
TI Studies on quinone. 29. Unusual reactions of quinones with enamines
AU Valderrama, J. A.; Paredes, M. C.; Pessoa-Mahana, C. D.
CS Fac. Quim., Pontificia Univ. Catolica Chile, Santiago, 306, Chile
SO Anales de Quimica (1995), 91(3-4), 214-219
CODEN: ANQUEX; ISSN: 1130-2283
PB Real Sociedad Espanola de Quimica
DT Journal
LA Spanish
GI

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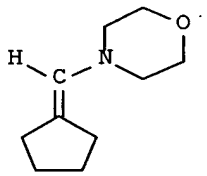
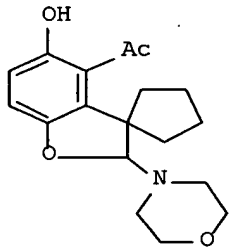
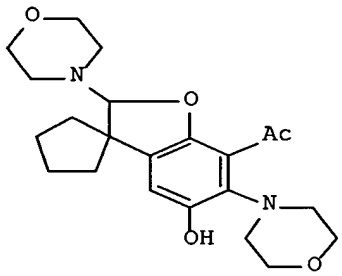



II




III



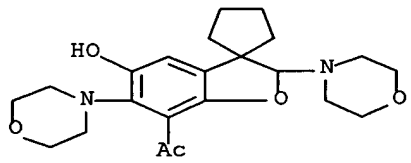

IV

AB The reaction of 5,8-dimethoxy-1,4-naphthoquinone 4, 2-acetyl-5,8-dimethoxy-1,4-naphthoquinone 6 and 2-acetyl-1,4-benzoquinone 10 with enamines is reported. Quinone 4 reacts with 4-isobutenylmorpholine to afford 5,8-dimethoxy-2-morpholino-1,4-naphthoquinone, whereas acetylnaphthoquinone 6 reacts with the same enamine to give the C-alkylation product I. Acetylbenzoquinone 10 reacts with enamine II to yield heterocycles III and IV generated through parallel C- and N-alkylation reactions.

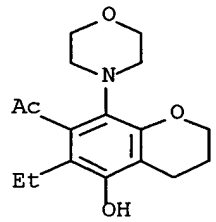
IT **180196-68-3P**
RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

RN 180196-68-3 CAPLUS

CN Ethanone, 1-(5-hydroxy-2,6-di-4-morpholinylspiro[benzofuran-3(2H),1'-cyclopentan]-7-yl)- (9CI) (CA INDEX NAME)



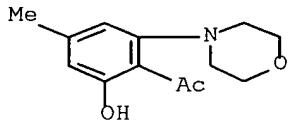
L4 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2002 ACS
AN 1991:492491 CAPLUS
DN 115:92491
TI Chromium-mediated cyclizations of cross-conjugated ketoketenes in 8- and 10e- processes
AU Brandvold, Timothy A.; Wulff, William D.; Rheingold, Arnold L.
CS Dep. Chem., Univ. Chicago, Chicago, IL, 60637, USA
SO Journal of the American Chemical Society (1991), 113(14), 5459-61
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
OS CASREACT 115:92491
AB The reaction of Fischer carbene complexes, e.g., (CO)2Cr:C(OMe)Me, with alkynes can produce two stereoisomeric .eta.1,.eta.3-vinyl carbene and two .eta.4-vinyl ketene complexed intermediates that differ as to which of the two substituents on the original carbene carbon is syn to the metal. With simple alkynes, the alkoxy group prefers to be anti to the metal and the reaction proceeds to give the typical phenol products. With keto alkynes, the stereochem. is reversed as a consequence of a proposed stereoelectronic preference for the alkoxy and carbonyl groups to be anti in the vinyl carbene complex intermediate. The lactone products result from 8e- bicyclizations of cross-conjugated ketoketene intermediates. This reaction was shown to be possible for other configurations involving similar 8e- processes giving isomeric lactones, and also for 10e- bicyclizations leading to 7-membered ring fused butyrolactones.
IT **135073-91-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 135073-91-5 CAPLUS
CN Ethanone, 1-[6-ethyl-3,4-dihydro-5-hydroxy-8-(4-morpholinyl)-2H-1-benzopyran-7-yl]- (9CI) (CA INDEX NAME)



L4 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2002 ACS
AN 1985:422242 CAPLUS
DN 103:22242
TI Pyran derivatives. 107. Preparation and reactions of 2-acetyl-3-amino-5-hydroxy-2-cyclohexenones; benzene derivatives from pyrones
AU Eiden, Fritz; Patzelt, Gertrud
CS Inst. Pharm. Lebensmittelchem., Univ. Muenchen, Munich, 8000/2, Fed. Rep. Ger.
SO Archiv der Pharmazie (Weinheim, Germany) (1985), 318(4), 328-40
CODEN: ARPMAS; ISSN: 0365-6233
DT Journal
LA German
OS CASREACT 103:22242
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Acetylpyrene I reacted with HNR22 [NR22 = NMe2, NEt2, NMeCH2CH2Ph, piperidino, morpholino, perhydroazepine, 4-(2-pyridyl)-1-piperazinyl, 4-methyl-1-piperazinyl, 4-[3-(trifluoromethyl)phenyl]-1-piperazinyl, 1-piperazinyl] gave aminocyclohexenones II and III and aminophenols IV. NH3 and 1,2-C6H4(NH2)2 gave pyridinones V (R = H, 2-H2NC6H4) or VI. The amine group in II (R2 = Me) (VII) was replaced by reaction with NH3, amines, amino acids, and hydrazine derivs. VII cyclized with PhC(:NH)NH2 or H2NNHR1 (R1 = Ph, Me) to give quinazoline VIII or indazoles IX. Treating II, III, the transamination analogs of VII, VIII, or IX with KOH in EtOH gave the corresponding phenol dehydration products.
IT **97066-10-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 97066-10-9 CAPLUS
CN Ethanone, 1-[2-hydroxy-4-methyl-6-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2002 ACS
AN 1983:575385 CAPLUS
DN 99:175385
TI Aminophenol acetic acid
IN Wenk, Paul; Breitenstein, Werner; Baumann, Marcus
PA Ciba-Geigy A.-G. , Switz.
SO Brit. UK Pat. Appl., 45 pp.
CODEN: BAXXDU
DT Patent
LA English
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | GB 2109373 | A1 | 19830602 | GB 1982-30352 | 19821025 |
| | GB 2109373 | B2 | 19860115 | | |
| | EP 82109 | A2 | 19830622 | EP 1982-810440 | 19821022 |
| | EP 82109 | A3 | 19850417 | | |
| | R: AT, BE, CH, DE, FR, IT, LI, LU, NL, SE | | | | |
| | FI 8203641 | A | 19830429 | FI 1982-3641 | 19821025 |
| | ES 516843 | A1 | 19850516 | ES 1982-516843 | 19821026 |
| | DK 8204760 | A | 19830429 | DK 1982-4760 | 19821027 |
| | NO 8203586 | A | 19830429 | NO 1982-3586 | 19821027 |
| | AU 8289824 | A1 | 19830505 | AU 1982-89824 | 19821027 |
| | ZA 8207845 | A | 19830629 | ZA 1982-7845 | 19821027 |
| | HU 30695 | O | 19840328 | HU 1982-3449 | 19821027 |
| | JP 58150544 | A2 | 19830907 | JP 1982-191738 | 19821028 |
| | DD 208798 | A5 | 19840411 | DD 1982-244347 | 19821028 |
| | ES 529377 | A1 | 19851101 | ES 1984-529377 | 19840201 |
| | ES 529378 | A1 | 19851101 | ES 1984-529378 | 19840201 |
| | ES 529379 | A1 | 19851101 | ES 1984-529379 | 19840201 |
| | ES 529380 | A1 | 19851201 | ES 1984-529380 | 19840201 |
| | ES 529376 | A1 | 19860601 | ES 1984-529376 | 19840201 |
| | ES 537285 | A1 | 19850816 | ES 1984-537285 | 19841031 |
| PRAI | CH 1981-6883 | | 19811028 | | |

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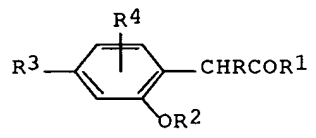


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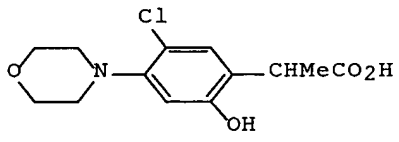
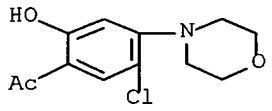



III

AB Phenylacetic acids I (R = H1, aliph.; R1 = OH, esterified OH, amino; R2 =
H, acyl; R3 = amino; R4 = H, substituent) were prepd. as inflammation inhibitors, analgesics,and sunscreens (no data). Thus, treating imidazo[1,2-a]pyridin-2(3H)-one-HCl with maleic acid gave its 3-(1,2-diacarboxyethyl) deriv. which was treated with MeCOCH:CH2 and hydrolyzed to give 4-methyl-3-(3-oxobutyl)maleic anhydride (II). II was treated with morpholinium benzoate to give 3-methyl-6-morpholinobenzofuran-
2(3H)-one which was converted to its 5-chloro deriv. and hydrolyzed to III.

IT **87203-04-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and methylation of)
RN 87203-04-1 CAPLUS
CN Ethanone, 1-[5-chloro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX
NAME)



L4 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2002 ACS
AN 1983:539751 CAPLUS
DN 99:139751
TI Furans
IN Wenk, Paul; Breitenstein, Werner; Baumann, Marcus
PA Ciba-Geigy A.-G. , Switz.
SO Eur. Pat. Appl., 103 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | EP 78241 | A2 | 19830504 | EP 1982-810439 | 19821022 |
| | EP 78241 | A3 | 19840328 | | |
| | R: AT, BE, CH, DE, FR, IT, LI, LU, NL, SE | | | | |
| | US 4426380 | A | 19840117 | US 1982-435595 | 19821021 |
| | FI 8203640 | A | 19830429 | FI 1982-3640 | 19821025 |
| | GB 2110210 | A1 | 19830615 | GB 1982-30351 | 19821025 |
| | GB 2110210 | B2 | 19850703 | | |
| | ES 516842 | A1 | 19840116 | ES 1982-516842 | 19821026 |
| | CA 1199635 | A1 | 19860121 | CA 1982-414197 | 19821026 |
| | DK 8204759 | A | 19830429 | DK 1982-4759 | 19821027 |
| | NO 8203585 | A | 19830429 | NO 1982-3585 | 19821027 |
| | AU 8289823 | A1 | 19830505 | AU 1982-89823 | 19821027 |
| | ZA 8207844 | A | 19830629 | ZA 1982-7844 | 19821027 |
| | DD 204699 | A5 | 19831207 | DD 1982-244314 | 19821027 |
| | HU 29609 | O | 19840228 | HU 1982-3447 | 19821027 |
| | JP 58126882 | A2 | 19830728 | JP 1982-191737 | 19821028 |
| | US 4451462 | A | 19840529 | US 1983-542334 | 19831017 |
| | ES 526890 | A1 | 19851001 | ES 1983-526890 | 19831028 |
| | ES 526892 | A1 | 19851001 | ES 1983-526892 | 19831028 |
| | ES 526891 | A1 | 19860201 | ES 1983-526891 | 19831028 |
| PRAI | CH 1981-6882 | | 19811028 | | |
| | US 1982-435595 | | 19821021 | | |

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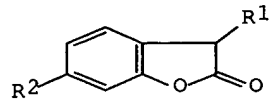

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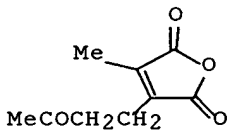


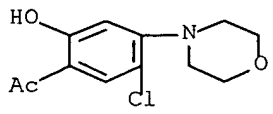
II

AB Benzofuranones I (R1 = H, aliph. group; R2 = amino disubstituted with hydrocarbondiyl; benzo ring may be addnl. substituted) and their salts and(or) isomers, useful as inflammation inhibitors, analgesics, and sunscreens for skin (no data), were prepd. Imidazo[1,2-a]pyridin-2(3H)-one hydrochloride in aq. NaOH added to maleic acid to give 3-(1,2-dicarboxyethyl)imidazo[1,2-a]pyridin-2-(3H)-one. The HCl salt of this added to MeCOCH:CH2 and the product was decarboxylated and hydrolyzed to give maleic anhydride II. This reacted with morpholinium benzoate in refluxing C6H6 in 48 h with H2O sepn. to give I (R1 = Me, R2 = morpholino).

IT **87203-04-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)(prepn. and etherification of)

RN 87203-04-1 CAPLUS

CN Ethanone, 1-[5-chloro-2-hydroxy-4-(4-morpholinyl)phenyl]- (9CI) (CA INDEX NAME)



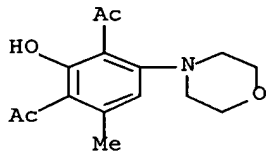
L4 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2002 ACS
AN 1981:568872 CAPLUS
DN 95:168872
TI Benzene derivatives from 4-pyrones: the reaction of 3,5-diacetyl- and 3,5-bisethoxycarbonyl-4-pyrones with secondary amines
AU Eiden, Fritz; Teupe, Ernst Guenther; Leister, Hans Peter
CS Inst. Pharm. Lebensmittelchem., Univ. Muenchen, Munich, 8000/2, Fed. Rep. Ger.
SO Archiv der Pharmazie (Weinheim, Germany) (1981), 314(4), 347-55
CODEN: ARPMAS; ISSN: 0365-6233
DT Journal
LA German
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The reactions of title pyrones I (R = EtO, Me) with cyclic R12NH (e.g., piperidine, morpholine) gave phenols II and, in the case of I (R = Me) with piperazine, bisphenol III. II (R = Me, NR12 = piperidino) and III reacted with Me2NCH(OCHMe2)2 to give IV and V. The reaction of IV with hydrazines gave pyrazoles VI (R2 = Ph, Me). Hydrolysis of II (R = Me, NR12 = 4-cyano-4-phenylpiperidino) gave VII (R3 = CONH2, CO2Et).

IT **77600-95-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

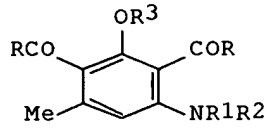
RN 77600-95-4 CAPLUS
CN Ethanone, 1,1'-[2-hydroxy-4-methyl-6-(4-morpholinyl)-1,3-phenylene]bis- (9CI) (CA INDEX NAME)



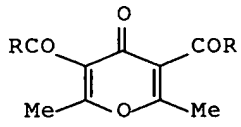
L4 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2002 ACS
AN 1981:191938 CAPLUS
DN 94:191938
TI 2-Hydroxy-4-methylbenzene compounds
IN Eiden, Fritz; Teupe, Ernst Guenther; Leister, Hans Peter; Mayer, Dieter
PA Thiemann, Dr., G.m.b.H. Chem.-Pharm. Fabrik, Fed. Rep. Ger.
SO Ger. Offen., 12 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI DE 2922488 | A1 | 19801211 | DE 1979-2922488 | 19790601 |

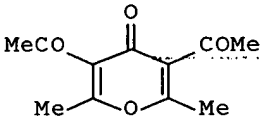
GI



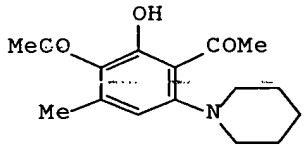
I



II



III

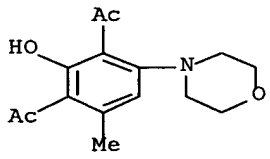


IV

AB I [R = Me or C1-4 alkoxy; R1 and R2 were C1-4 alkyl or (R1R2N =) heterocyclyl; R3 = H, Me, or Et] were prepd. by reaction of II with secondary amines. Thus 2 g III and 950 mg piperidine were heated 1.5 h at 100.degree. to give 84% IV.

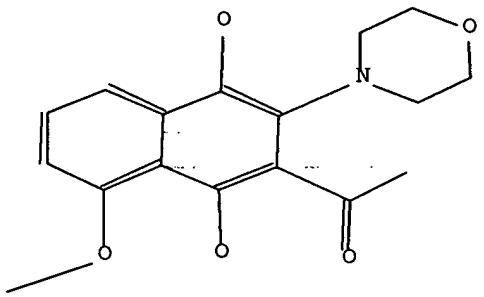
IT **77600-95-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 77600-95-4 CAPLUS
CN Ethanone, 1,1'-[2-hydroxy-4-methyl-6-(4-morpholinyl)-1,3-phenylene]bis- (9CI) (CA INDEX NAME)



L8 ANSWER 1 OF 6 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

| | |
|---|---|
| Beilstein Records (BRN): | 8718066 |
| Chemical Name (CN): | 1-(1,4-dihydroxy-8-methoxy-3-morpholin-4-yl-naphthalen-2-yl)-ethanone |
| Autonom Name (AUN): | 1-(1,4-dihydroxy-8-methoxy-3-morpholin-4-yl-naphthalen-2-yl)-ethanone |
| Molec. Formula (MF): | C17 H19 N O5 |
| Molecular Weight (MW): | 317.34 |
| Lawson Number (LN): | 30824, 15948, 289 |
| Compound Type (CTYPE): | heterocyclic |
| Constitution ID (CONSID): | 7384156 |
| Tautomer ID (TAUTID): | 8213631 |
| Entry Date (DED): | 2001/04/26 |
| Update Date (DUPD): | 2001/04/26 |



Field Availability:

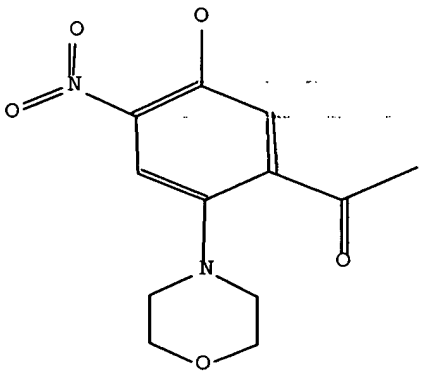
| Code | Name | Occurrence |
|---|---|---|
| BRN | Beilstein Records | 1 |
| CN | Chemical Name | 1 |
| AUN | Autonomname | 1 |
| MF | Molecular Formula | 1 |
| FW | Formular Weight | 1 |
| LN | Lawson Number | 3 |
| CTYPE | Compound Type | 1 |
| CONSID | Constitution ID | 1 |
| TAUTID | Tautomer ID | 1 |
| ED | Entry Date | 1 |
| UPD | Update Date | 1 |

This substance also occurs in Reaction Documents:

| Code | Name | Occurrence |
|---|---|---|
| RX | Reaction Documents | 1 |
| RXPRO | Substance is Reaction Product | 1 |

L8 ANSWER 2 OF 6 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

| | |
|---|---|
| Beilstein Records (BRN): | 7770152 |
| Chemical Name (CN): | 1-(5-hydroxy-2-morpholin-4-yl-4-nitrophenyl)ethanone |
| Molec. Formula (MF): | C12 H14 N2 O5 |
| Molecular Weight (MW): | 266.25 |
| Lawson Number (LN): | 30824, 15785 |
| Compound Type (CTYPE): | heterocyclic |
| Constitution ID (CONSID): | 6596594 |
| Tautomer ID (TAUTID): | 7334998 |
| Beilstein Citation (BSO): | 6-27 |
| Entry Date (DED): | 1998/03/03 |
| Update Date (DUPD): | 1998/03/04 |



Field Availability:

| Code | Name | Occurrence |
|---|---|---|
| BRN | Beilstein Records | 1 |
| CN | Chemical Name | 1 |
| MF | Molecular Formula | 1 |
| FW | Formular Weight | 1 |
| LN | Lawson Number | 2 |
| CTYPE | Compound Type | 1 |
| CONSID | Constitution ID | 1 |
| TAUTID | Tautomer ID | 1 |
| BSO | Beilstein Citation | 1 |
| ED | Entry Date | 1 |
| UPD | Update Date | 1 |
| IR | Infrared Spectrum | 1 |
| MP | Melting Point | 1 |
| NMR | Nuclear Magnetic Resonance | 2 |

This substance also occurs in Reaction Documents:

| Code | Name | Occurrence |
|---|---|---|

| | | |
|---|---|---|
| RX | Reaction Documents | 1 |
| RXPRO | Substance is Reaction Product | 1 |

Melting Point:

| Value (MP) (Cel) | Ref. |
|---|---|
| 159 - 160 | 1 |

Reference(s):

1. Padwa, Albert; Dimitroff, Martin; Waterson, Alex G.; Wu, Tianhua, J.Org.Chem., CODEN: JOCEAH, 62(12), <1997>, 4088-4096; BABS-6062060

Nuclear Magnetic Resonance:

NMR

Description (.KW): Chemical shifts
Nucleus (.NUC): 1H
Solvents (.SOL): CDCl3
Reference(s):
1. Padwa, Albert; Dimitroff, Martin; Waterson, Alex G.; Wu, Tianhua, J.Org.Chem., CODEN: JOCEAH, 62(12), <1997>, 4088-4096; BABS-6062060

NMR

Description (.KW): Chemical shifts
Nucleus (.NUC): 13C
Solvents (.SOL): CDCl3
Reference(s):
1. Padwa, Albert; Dimitroff, Martin; Waterson, Alex G.; Wu, Tianhua, J.Org.Chem., CODEN: JOCEAH, 62(12), <1997>, 4088-4096; BABS-6062060

Infrared Spectrum:

| Description (.KW) | Solvent (.SOL) | Ref. | Note |
|---|---|---|---|
| Bands | CHCl3 | 1 | 1 |

Reference(s):

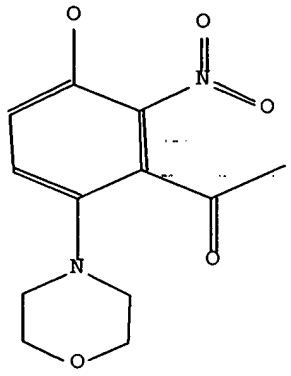
1. Padwa, Albert; Dimitroff, Martin; Waterson, Alex G.; Wu, Tianhua, J.Org.Chem., CODEN: JOCEAH, 62(12), <1997>, 4088-4096; BABS-6062060

Notes(s):

1. 3272 - 1618 cm**(-1)

L8 ANSWER 3 OF 6 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

| | |
|---|---|
| Beilstein Records (BRN): | 7769291 |
| Chemical Name (CN): | 1-(5-hydroxy-2-morpholin-4-yl-6-nitrophenyl)ethanone |
| Molec. Formula (MF): | C12 H14 N2 O5 |
| Molecular Weight (MW): | 266.25 |
| Lawson Number (LN): | 30824, 15785 |
| Compound Type (CTYPE): | heterocyclic |
| Constitution ID (CONSID): | 6596593 |
| Tautomer ID (TAUTID): | 7334999 |
| Beilstein Citation (BSO): | 6-27 |
| Entry Date (DED): | 1998/03/03 |
| Update Date (DUPD): | 1998/03/04 |



Field Availability:

| Code | Name | Occurrence |
|---|---|---|
| BRN | Beilstein Records | 1 |
| CN | Chemical Name | 1 |
| MF | Molecular Formula | 1 |
| FW | Formular Weight | 1 |
| LN | Lawson Number | 2 |
| CTYPE | Compound Type | 1 |
| CONSID | Constitution ID | 1 |
| TAUTID | Tautomer ID | 1 |
| BSO | Beilstein Citation | 1 |
| ED | Entry Date | 1 |
| UPD | Update Date | 1 |
| IR | Infrared Spectrum | 1 |
| MP | Melting Point | 1 |
| NMR | Nuclear Magnetic Resonance | 3 |

This substance also occurs in Reaction Documents:

| Code | Name | Occurrence |
|---|---|---|
| RX | Reaction Documents | 1 |

Melting Point:

| Value (MP) (Cel) | Ref. |
|---|---|
| 156 - 157 | 1 |

Reference(s):
1. Padwa, Albert; Dimitroff, Martin; Waterson, Alex G.; Wu, Tianhua, J.Org.Chem., CODEN: JOCEAH, 62(12), <1997>, 4088-4096; BABS-6062060

Nuclear Magnetic Resonance:

NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 1H
Solvents (.SOL): CDCl3
Reference(s):
1. Padwa, Albert; Dimitroff, Martin; Waterson, Alex G.; Wu, Tianhua, J.Org.Chem., CODEN: JOCEAH, 62(12), <1997>, 4088-4096; BABS-6062060

NMR
Description (.KW): Chemical shifts
Nucleus (.NUC): 13C
Solvents (.SOL): CDCl3
Reference(s):
1. Padwa, Albert; Dimitroff, Martin; Waterson, Alex G.; Wu, Tianhua, J.Org.Chem., CODEN: JOCEAH, 62(12), <1997>, 4088-4096; BABS-6062060

NMR
Description (.KW): Spin-spin coupling constants
Solvents (.SOL): CDCl3
Note(s) (.COM): 1H-1H
Reference(s):
1. Padwa, Albert; Dimitroff, Martin; Waterson, Alex G.; Wu, Tianhua, J.Org.Chem., CODEN: JOCEAH, 62(12), <1997>, 4088-4096; BABS-6062060

Infrared Spectrum:

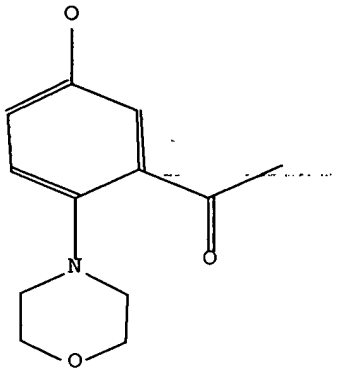
| Description (.KW) | Solvent (.SOL) | Ref. | Note |
|---|---|---|---|
| Bands | CHCl3 | 1 | 1 |

Reference(s):
1. Padwa, Albert; Dimitroff, Martin; Waterson, Alex G.; Wu, Tianhua, J.Org.Chem., CODEN: JOCEAH, 62(12), <1997>, 4088-4096; BABS-6062060

Notes(s):
1. 3285 - 1612 cm**(-1)

L8 ANSWER 4 OF 6 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

| | |
|---|---|
| Beilstein Records (BRN): | 7762227 |
| Chemical Name (CN): | 1-(5-hydroxy-2-morpholin-4-ylphenyl)ethanone |
| Molec. Formula (MF): | C12 H15 N O3 |
| Molecular Weight (MW): | 221.26 |
| Lawson Number (LN): | 30824, 15784 |
| Compound Type (CTYPE): | heterocyclic |
| Constitution ID (CONSID): | 6583197 |
| Tautomer ID (TAUTID): | 7327405 |
| Beilstein Citation (BSO): | 6-27 |
| Entry Date (DED): | 1998/03/03 |
| Update Date (DUPD): | 1998/03/04 |




Field Availability:

| Code | Name | Occurrence |
|---|---|---|
| BRN | Beilstein Records | 1 |
| CN | Chemical Name | 1 |
| MF | Molecular Formula | 1 |
| FW | Formular Weight | 1 |
| LN | Lawson Number | 2 |
| CTYPE | Compound Type | 1 |
| CONSID | Constitution ID | 1 |
| TAUTID | Tautomer ID | 1 |
| BSO | Beilstein Citation | 1 |
| ED | Entry Date | 1 |
| UPD | Update Date | 1 |
| IR | Infrared Spectrum | 1 |
| MP | Melting Point | 1 |
| NMR | Nuclear Magnetic Resonance | 2 |

This substance also occurs in Reaction Documents:

| Code | Name | Occurrence |
|---|---|---|
| RX | Reaction Documents | 1 |

Melting Point:

| Value (MP) (Cel) | Ref. |
|---|---|
| 122 - 123 | 1 |

Reference(s):
1. Padwa, Albert; Dimitroff, Martin; Waterson, Alex G.; Wu, Tianhua, J.Org.Chem., CODEN: JOCEAH, 62(12), <1997>, 4088-4096; BABS-6062060

Nuclear Magnetic Resonance:

NMR

| | |
|---|---|
| Description (.KW): | Chemical shifts |
| Nucleus (.NUC): | 1H |
| Solvents (.SOL): | CDCl3 |

Reference(s):
1. Padwa, Albert; Dimitroff, Martin; Waterson, Alex G.; Wu, Tianhua, J.Org.Chem., CODEN: JOCEAH, 62(12), <1997>, 4088-4096; BABS-6062060

NMR

| | |
|---|---|
| Description (.KW): | Chemical shifts |
| Nucleus (.NUC): | 13C |
| Solvents (.SOL): | CDCl3 |

Reference(s):
1. Padwa, Albert; Dimitroff, Martin; Waterson, Alex G.; Wu, Tianhua, J.Org.Chem., CODEN: JOCEAH, 62(12), <1997>, 4088-4096; BABS-6062060

Infrared Spectrum:

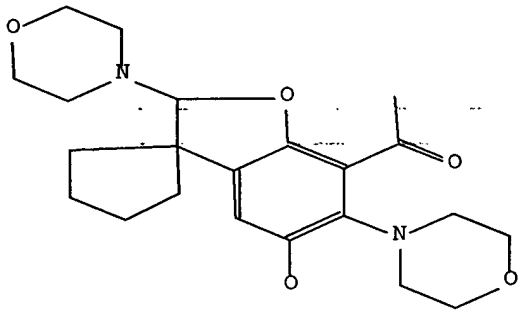
| Description (.KW) | Solvent (.SOL) | Ref. | Note |
|---|---|---|---|
| Bands | CHCl3 | 1 | 1 |

Reference(s):
1. Padwa, Albert; Dimitroff, Martin; Waterson, Alex G.; Wu, Tianhua, J.Org.Chem., CODEN: JOCEAH, 62(12), <1997>, 4088-4096; BABS-6062060

Notes(s):
1. 2829 - 1598 cm**(-1)

L8 ANSWER 5 OF 6 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

| | |
|---|---|
| Beilstein Records (BRN): | 7394755 |
| Chemical Name (CN): | 2-ciclopentanespiro-2,6-dimorfolino-5-hidroxi-6-acetil-2,3-dihidrobenzo<b>furano |
| Molec. Formula (MF): | C22 H30 N2 O5 |
| Molecular Weight (MW): | 402.49 |
| Lawson Number (LN): | 30824, 20641 |
| Compound Type (CTYPE): | heterocyclic |
| Constitution ID (CONSID): | 6305766 |
| Tautomer ID (TAUTID): | 6977174 |
| Beilstein Citation (BSO): | 6-27 |
| Entry Date (DED): | 1996/04/26 |
| Update Date (DUPD): | 1996/04/26 |



Field Availability:

| Code | Name | Occurrence |
|---|---|---|
| BRN | Beilstein Records | 1 |
| CN | Chemical Name | 1 |
| AUN | Autonomname | 1 |
| MF | Molecular Formula | 1 |
| FW | Formular Weight | 1 |
| LN | Lawson Number | 2 |
| FS | File Segment | 1 |
| CTYPE | Compound Type | 1 |
| CONSID | Constitution ID | 1 |
| TAUTID | Tautomer ID | 1 |
| BSO | Beilstein Citation | 1 |
| ED | Entry Date | 1 |
| UPD | Update Date | 1 |
| IR | Infrared Spectrum | 1 |
| MP | Melting Point | 1 |
| NMR | Nuclear Magnetic Resonance | 3 |

This substance also occurs in Reaction Documents:

| Code | Name | Occurrence |
|---|---|---|

| | | |
|---|---|---|
| RX | Reaction Documents | 1 |
| RXPRO | Substance is Reaction Product | 1 |

Melting Point:

| Value (MP) (Cel) | Solvent (.SOL) | Ref. |
|---|---|---|
| 182 - 183 | cyclohexane | 1 |

Reference(s):

1. Valderrama, J. A.; Paredes, M. C.; Pessoa-Mahana, C. D., An.Quim., CODEN: ANQUEX, 91(3-4), <1995>, 214-219; BABS-6001318

Nuclear Magnetic Resonance:

NMR

Description (.KW): Chemical shifts
Nucleus (.NUC): 1H
Solvents (.SOL): CDCl3
Reference(s):
1. Valderrama, J. A.; Paredes, M. C.; Pessoa-Mahana, C. D., An.Quim., CODEN: ANQUEX, 91(3-4), <1995>, 214-219; BABS-6001318

NMR

Description (.KW): Chemical shifts
Nucleus (.NUC): 13C
Solvents (.SOL): CDCl3
Reference(s):
1. Valderrama, J. A.; Paredes, M. C.; Pessoa-Mahana, C. D., An.Quim., CODEN: ANQUEX, 91(3-4), <1995>, 214-219; BABS-6001318

NMR

Description (.KW): Spin-spin coupling constants
Solvents (.SOL): CDCl3
Note(s) (.COM): 1H-1H
Reference(s):
1. Valderrama, J. A.; Paredes, M. C.; Pessoa-Mahana, C. D., An.Quim., CODEN: ANQUEX, 91(3-4), <1995>, 214-219; BABS-6001318

Infrared Spectrum:

| Description (.KW) | Solvent (.SOL) | Ref. | Note |
|---|---|---|---|
| Bands | KBr | 1 | 1 |

Reference(s):

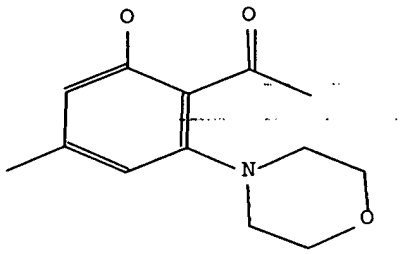
1. Valderrama, J. A.; Paredes, M. C.; Pessoa-Mahana, C. D., An.Quim., CODEN: ANQUEX, 91(3-4), <1995>, 214-219; BABS-6001318

Notes(s):

1. 3250 - 1200 cm**(-1)

L8 ANSWER 6 OF 6 BEILSTEIN COPYRIGHT 2002 BEILSTEIN CDS MDL

| | |
|---|---|
| Beilstein Records (BRN): | 6209048 |
| Chemical Name (CN): | 2-Hydroxy-4-methyl-6-morpholino-acetophenon |
| Autonom Name (AUN): | 1-(2-hydroxy-4-methyl-6-morpholin-4-yl-phenyl)-ethanone |
| Molec. Formula (MF): | C13 H17 N O3 |
| Molecular Weight (MW): | 235.28 |
| Lawson Number (LN): | 30824, 15794 |
| Compound Type (CTYPE): | heterocyclic |
| Constitution ID (CONSID): | 5418483 |
| Tautomer ID (TAUTID): | 5928124 |
| Beilstein Citation (BSO): | 6-27 |
| Entry Date (DED): | 1993/10/20 |
| Update Date (DUPD): | 1993/10/20 |




Field Availability:

| Code | Name | Occurrence |
|---|---|---|
| BRN | Beilstein Records | 1 |
| CN | Chemical Name | 1 |
| AUN | Autonomname | 1 |
| MF | Molecular Formula | 1 |
| FW | Formular Weight | 1 |
| LN | Lawson Number | 2 |
| CTYPE | Compound Type | 1 |
| CONSID | Constitution ID | 1 |
| TAUTID | Tautomer ID | 1 |
| BSO | Beilstein Citation | 1 |
| ED | Entry Date | 1 |
| UPD | Update Date | 1 |
| IR | Infrared Spectrum | 1 |
| MP | Melting Point | 1 |
| NMR | Nuclear Magnetic Resonance | 1 |
| UVS | UV and Visible Spectrum | 1 |

This substance also occurs in Reaction Documents:

| Code | Name | Occurrence |
|---|---|---|
| RX | Reaction Documents | 3 |

Melting Point:

| Value (MP) (Cel) | Solvent (.SOL) | Ref. |
|---|---|---|
| 75 | aq. ethanol | 1 |

Reference(s):
1. Eiden, Fritz; Patzelt, Gertrud, Arch.Pharm.(Weinheim Ger.), CODEN: ARPMAS, 318(4), <1985>, 328-340; BABS-5775996

Nuclear Magnetic Resonance:
NMR

Description (.KW): Chemical shifts
Nucleus (.NUC): 1H
Solvents (.SOL): CDCl3
Reference(s):
1. Eiden, Fritz; Patzelt, Gertrud, Arch.Pharm.(Weinheim Ger.), CODEN: ARPMAS, 318(4), <1985>, 328-340; BABS-5775996

Infrared Spectrum:

| Description (.KW) | Solvent (.SOL) | Ref. | Note |
|---|---|---|---|
| Bands | KBr | 1 | 1 |

Reference(s):
1. Eiden, Fritz; Patzelt, Gertrud, Arch.Pharm.(Weinheim Ger.), CODEN: ARPMAS, 318(4), <1985>, 328-340; BABS-5775996

Notes(s):
1. 1620 - 1600 cm**(-1)

UV and Visible Spectrum:

| Description (.KW) | Solvent (.SOL) | Absorption Maxima (.AM) (nm) | Ext./Abs. Coeff. (.EAC) (I/MOL*CM) | Ref. |
|---|---|---|---|---|
| Absorption maxima | dioxane | 244, 300, 354 | 25704, 9333, 5248 | 1 |

Reference(s):
1. Eiden, Fritz; Patzelt, Gertrud, Arch.Pharm.(Weinheim Ger.), CODEN: ARPMAS, 318(4), <1985>, 328-340; BABS-5775996

```
=> d l1; d his; log y
L1 HAS NO ANSWERS
L1                STR
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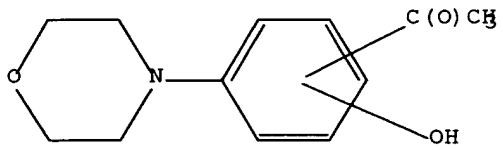


Structure attributes must be viewed using STN Express query preparation.

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L3             17 S L1 FUL

     FILE 'CAPLUS' ENTERED AT 18:02:18 ON 18 DEC 2002
L4             10 S L3

     FILE 'BEILSTEIN' ENTERED AT 18:02:50 ON 18 DEC 2002
L5              0 S L1
L6              9 S L1 FUL
L7              8 S L6/COM
L8              6 S L7 NOT L4

     FILE 'MARPAT' ENTERED AT 18:05:07 ON 18 DEC 2002
L9              7 S L1
L10           270 S L1 FUL


COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                              99.46     471.54

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
                                                 ENTRY    SESSION
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